City of
Coeur d'Alene
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Draft 2023 Comprehensive Rate and Capitalization Fee Studies

City of Coeur d'Alene Wastewater Division

Wastewater Rate and Capitalization Fee Studies

January 13, 2023

Coeur d'Alene Idaho

January 13, 2023

Mr. Michael Becker
Wastewater Department Capital Program Manager
City of Coeur d'Alene
710 East Mullan Avenue.
Coeur d'Alene, Idaho 83814

Subject: City of Coeur d'Alene Comprehensive Wastewater Rate Study

Dear Mr. Becker:

HDR Engineering, Inc. (HDR) is pleased to present the draft report on the comprehensive wastewater rate and capitalization fee study conducted for the City of Coeur d'Alene (City). A key objective in developing the City's comprehensive wastewater rate and fee study was to develop a financial plan, and subsequent proposed rates and fees that generate adequate revenues to fund the operating and capital needs of the wastewater utility. Another objective of this study was to determine the equity or fairness of the current rates by conducting a cost of service analysis. This report outlines the approach, methodology, findings, and conclusions of the comprehensive wastewater rate and fee study process.

This report was developed utilizing the City's accounting, operating, and customer records. HDR has relied on this information to develop our analyses that form our findings, conclusions and recommendations. At the same time, this study was developed utilizing generally accepted rate setting principles and methodologies. The conclusions and recommendations contained within this report are intended to provide a financial plan that meets the needs for the operation, maintenance, replacement, and depreciation of the utility. Finally, this report provides the basis for developing and implementing rates and fees that are cost-based, defensible, and equitable to the City's customers.

We appreciate the assistance provided by City staff in the development of this study. More importantly, we appreciate the opportunity to work with the City of Coeur d'Alene's staff, management, and City Council on this project.

Sincerely yours,
HDR Engineering, Inc.

David Clark, PE
Senior Vice President

Shawn Koorn
Associate Vice President

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Executive Summary

Wastewater Rate Study

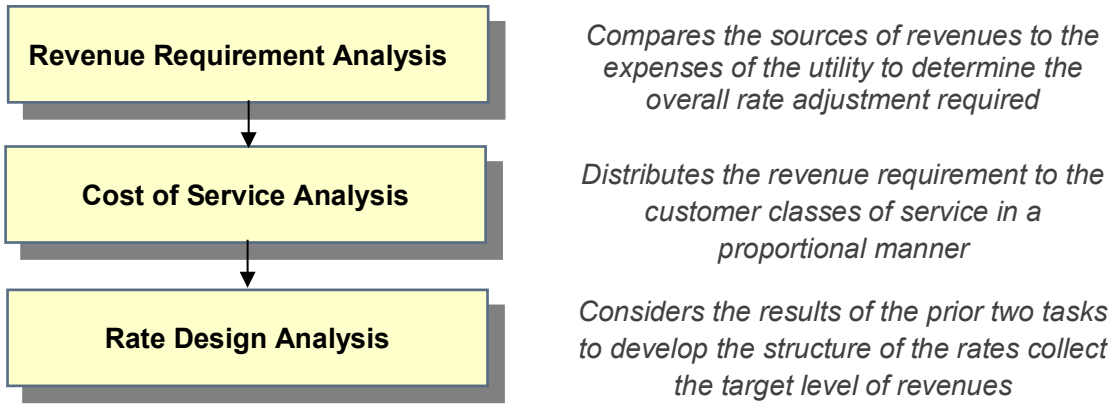
The City of Coeur d'Alene (City) retained HDR Engineering, Inc. (HDR) to perform a comprehensive rate and fee study for its wastewater utility. A comprehensive rate and fee study determines the adequacy of the existing wastewater rates and fees and provides the basis to maintain cost-based and equitable rates and fees. This report will describe the methodology, findings, and conclusions of the wastewater rate and fee study process undertaken for the City. The City has historically completed rate studies periodically to support the financial requirements of the wastewater utility, most recently in 2002, 2012 and 2018. This study is a continuation of the City's policy to maintain cost-based and equitable rates and fees for the next five-year period.

A comprehensive rate study determines whether existing rates are adequate to meet the utility's operating and capital expenses with revenues received from customers. Rates set too low may result in insufficient funds to maintain system integrity. The study provides a basis for making rate adjustments; as well as, addressing the fairness and equity of the City's current rates. As a point of reference, the summary of the CAP Fee is provided later in this section, as well as a detailed discussion in Section 7 of this report.

Overview of the Rate Study Process

This comprehensive rate study consists of three interrelated analyses performed for the wastewater utility. Figure ES-1 provides an overview of these analyses.

Figure ES-1
Overview of the Comprehensive Wastewater Rate Setting Process



A revenue requirement analysis is concerned with the overall revenues and expenses, both operating and capital, of the utility. From this analysis, a determination can be made as to the overall level of adjustment to revenues necessary to meet annual needs. Next, a cost of service analysis is performed to equitably allocate costs from the revenue requirement to system cost drivers such as volume and strength and then distributes the allocated costs to the customer classes

of service (e.g., residential, commercial). Finally, once an overall level of rate adjustment is determined, and the costs have been distributed to the customer classes, the last step of the rate study process is the design of rates. The rate design considers the appropriate level of revenues to collect, for each customer class of service, while considering rate design goals and objectives of the utility (e.g., revenue stability, cost-based, continuity in philosophy).

Key Wastewater Rate Study Results

A comprehensive rate study was undertaken to financially evaluate the wastewater utility on a stand-alone basis. That is, no subsidies between the wastewater utility and the City's other utility funds should occur. By viewing the wastewater utility on a stand-alone basis, the need to adequately fund both operations and maintenance (O&M) expenses and annual capital infrastructure needs must be balanced against the rate impacts to customers.

Based on the technical analysis undertaken as part of this study, the following findings, conclusions, and recommendations were noted.

- ✓ Total wastewater capital projects for the period of 2023 – 2032 total $82.7 million including estimated inflationary impacts. These include the major projects listed below:
  - ✓ Equipment and Capital Replacement projects total $17.7 million.
  - ✓ Tertiary Membrane Filter (TMF) expansion projects total $14.5 million.
  - ✓ Collection system Improvements total $8.7 million.
  - ✓ Trickle Filter Rehabilitation projects total $8.7 million
  - ✓ Solids Handling Improvements total $5.9 million
  - ✓ Ultraviolet (UV) Disinfection Upgrades total $5.1 million
- ✓ A revenue requirement analysis was developed for the time period of 2023 – 2032. With the focus being on the next five-year period (2023 – 2027) for establishing proposed rates.
- ✓ A cost of service analysis was completed to review the equity of the existing rates.
- ✓ The cost of service results indicate that generally, residential and commercial are within a reasonable range of their cost of service.
- ✓ Low Income Residential rate was reassessed to better align with their cost to serve.
- ✓ Fernan Rates are being transitioned over the five-year period to be equal to the regular residential and commercial rates.
- ✓ Proposed rates were developed for the next five-year of period of 2023 through 2027 based on the overall revenue needs and cost of service results.
- ✓ The capital funding analysis assumes long-term borrowing of $7 million in 2028, which is beyond the five-year rate window. The City will reassess the need for the long-term borrowing during the next rate study
- ✓ Prior to the end of 2027, final adopted effective rates, the City should review the need for additional rate adjustments and complete an update of the comprehensive rate study.

Summary of the Revenue Requirement Analysis

A revenue requirement analysis sums the wastewater utility's annual O&M expenses and capital improvement needs and compares it to the total revenues of the utility to determine the overall rate adjustment required. Provided below in Table ES-1 is a summary of the wastewater revenue requirement analysis.

Table ES-1
Summary of Wastewater Utility Revenue Requirement ($000s)

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Sources of Funds –					
Rate Revenues	$14,219	$14,324	$14,430	$14,537	$14,645
Misc. Revenues	86	140	104	86	76
Total Source of Funds	$14,304	$14,464	$14,534	$14,623	$14,721
Applications of Funds –					
Wastewater Personnel Costs	$3,587	$3,694	$3,805	$3,919	$4,037
Administration	1,172	1,211	1,251	1,293	1,336
Treatment	2,507	2,602	2,701	3,211	3,338
Collection	153	160	167	174	182
Sludge Management	146	151	156	162	168
Rate/Reserve Funded Improvements	4,600	4,700	4,850	5,200	5,650
Net Debt Service	3,013	3,013	3,013	3,013	3,015
Change in Working Capital	-	0	0	0	0
Total Application of Funds	15,177	15,530	15,943	16,972	17,726
Bal./(Defic.) of Funds	($873)	($1,067)	($1,410)	($2,349)	($3,005)
Balance as a % of Rates	6.1%	7.4%	9.8%	16.2%	20.5%
Proposed Rate Adjustment	5.0%	5.0%	5.0%	5.0%	5.0%

It is important to note the annual deficiencies in the Table ES-1 are cumulative. That is, any adjustments in the initial years will reduce the deficiency in the later years. Over the projected time period, rates need to be adjusted by approximately 20.5% in order to adequately and properly fund the City's wastewater utility O&M and capital infrastructure needs.

Based on the revenue requirement analysis developed, HDR recommends the City increase the overall revenue levels of the wastewater utility. Based on the plan developed in this report, the recommended annual adjustments of 5.0% over the five-year rate setting period to provide adequate funding for both O&M and capital funding based on the assumptions developed as part of the rate study.

Analyzing Cost of Service

After the total revenue requirement is determined, it is distributed to the users (customers) of the service. The distribution, typically analyzed through a cost of service study, reflects the cost relationships for providing and delivering wastewater services. A cost of service study requires three steps:

1. Costs are functionalized or grouped into the various cost categories related to providing service (pumping, treatment, collection, etc.). This step is often largely accomplished by the utility's chart of accounts within its accounting system.
2. The functionalized costs are then allocated to specific cost components. Allocation refers to the arrangement of the functionalized data into cost components. For example, a wastewater utility's costs are typically classified as volume, strength, or customer-related.
3. Once the revenue requirement is allocated to the cost components, the cost component totals are distributed to the customer classes of service (e.g., residential, commercial). The distribution is based on each customer class's relative contribution to the cost component. For example, customer-related costs are distributed to each class of service based on the total number of customers in that class of service (e.g., proportional distribution). Once costs are distributed, the required revenues for achieving cost-based rates can be determined.

Summary of the Cost of Service Analysis

A cost of service analysis determines the proportional distribution of the revenue requirement to each customer class of service. The objective of the cost of service analysis is different from determining the revenue requirement. A cost of service analysis determines the equitable manner to collect the revenue requirement based on the customer class characteristics and facility requirements. A summary of the cost of service analysis for 2023 is shown in Table ES-2.

Table ES-2
Summary of the Cost of Service Analysis ($000s)

Customer Class of Service	Present Rate Revenues	Allocated Costs	$ Difference	% Difference*
Residential	$8,719	$8,935	($216)	5.4%
Commercial	5,500	5,612	(112)	4.4%
Total	$14,219	$14,547	($328)	5.0%

* Percent difference is based on an April of each fiscal year implementation

Table ES-2 provides a comparison of the current rate revenues to the distributed costs for each customer class of service. The difference between the rate revenues and distributed costs for each class of service represents the variance between the level of revenues currently received from each class of service and the proportional distribution of costs. In viewing these results, it is important to remember that a cost of service analysis is not an exact calculation. Rather, it reflects the current relationships between current customer revenues and current costs. These relationships change over time given budgetary changes and changes in customer usage patterns and characteristics. A customer class is generally considered being within a reasonable range of its Cost of Service when the customers cost of service change is within 5% of the overall rate adjustment. Given all customer classes are within this range, HDR does not recommend interclass changes to rate at this time.

Rate Design

Rates that meet the utility's objectives are designed based on the results of both the revenue requirement and the cost of service analysis. This results in rates which are cost-based; however, rate design may also consider factors such as revenue stability, affordability, continuity of past rate philosophy, ease of administration, and customer understanding. Table ES-3 provides the current rates as adopted by the City and effective in 2022. The purpose of this study is to evaluate and update, as based on the results of the study, these rate for the next five-year period. At the end of that five year period a rate study will be conducted to set rate for the next five-years.

Table ES-3
Current Wastewater Rates

Customer	Billing Fee Code	Present Rates
Residential Rates		
Monthly Service Charges		
Residential	SERS/SERV/SERSL/ SERF/SERMF	$14.99
Monthly Usage Charge (per dwelling unit)		
Residential	SERS	33.82
Residential (vacation)	SERV	0.00
Residential-Low	SERSL	6.24
Fernan-Residential	SERF	24.17
Duplex-One Meter	SERMF	33.82
Commercial Rates		
Monthly Service Charges		
Commercial	CWCL/CWCM/CWCH/ SENRO6/SENRF	$14.99
Monthly Usage Charges		
Commercial-Low	CWCL	5.61
Commercial-Medium	CWCM	6.44
Commercial-High	CWCH	7.24
Fernan-Commercial	SENRO6	4.86
Fernan-Commercial	SENRF	4.86

The overall revenue adjustments were determined in the revenue requirement analysis to calculate the prudent revenue levels necessary to fund operating and capital expenses. How the overall revenue adjustment is applied by class of service takes into consideration the cost of service results to determine how the overall revenue adjustment is collected.

The cost of service compared the overall rate categories of residential and commercial, but within each of those two categories there are additional sub-categories with different rates. Within the residential category there is single family homes, low use single family homes, and Fernan residential. Within the commercial category there are commercial low, medium, and high strength as

well as Fernan commercial. The rate design portion of the study will adjust the rates to better reflect the sub-category rates impact on the system based on the results of the study.

Proposed Rates

Based on the revenue requirement and the cost of service analysis proposed rates were developed for the next five-years. Table ES-4 provides the proposed wastewater rates for the next five-year period. The proposed rates were adjusted evenly across the residential and commercial customer groups given the results of the cost of service indicated that the City's customer classes were within a reasonable range. Minor adjustments were made within the residential user group to align customer usage with their usage charge. Specifically, the residential low and Fernan rates were revised to reflect the average unit costs as developed in the cost of service analysis.

Table ES–4
Present and Proposed Wastewater Rates

Customer Class and Rate	Billing Fee Code	Present Rates	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Monthly Service Charge	All Customers	$14.99	$15.74	$16.53	$17.35	$18.22	$19.13
Residential Rates							
Monthly Usage Charge (per dwelling unit)							
Residential	SERS	$33.82	$33.18	$34.83	$36.58	$38.40	$40.32
Residential(vacation)	SERV	0.00	0.00	0.00	0.00	0.00	0.00
Residential-Low	SERSL	6.24	17.72	18.61	19.54	20.52	21.54
Fernan-Residential	SERF	24.17	27.09	30.16	33.39	36.77	40.32
Duplex-One Meter (x2)	SERMF	33.82	33.18	34.83	36.58	38.40	40.32
Residential + ADU-One Meter (x2)	SERADU		33.18	34.83	36.58	38.40	40.32
Commercial Rates							
Monthly Usage Charges per 1,000 gallons							
Commercial-Low*	CWCL	$5.61	$5.89	$6.19	$6.49	$6.82	$7.16
Commercial-Medium	CWCM	6.44	6.76	7.10	7.46	7.83	8.22
Commercial-High	CWCH	7.24	7.60	7.98	8.38	8.80	9.24
Fernan-Commercial	SENRO6	4.86	5.28	5.71	6.17	6.66	7.16
Fernan-Commercial	SENRF	4.86	5.28	5.71	6.17	6.66	7.16

Capitalization Fee Study

The objective of a capitalization fee (CAP Fee) study is to calculate a cost-based and legally defensible CAP Fee for new customers connecting to the City's wastewater system. CAP Fees provide how new customers are able to "buy in" to the existing system.

Past legal challenges to CAP Fees has resulted in the development of an approach that reflects these legal decisions. The recent legal decisions outlined a methodology that takes the replacement

cost of the system, less unfunded depreciation and outstanding balance on debt, divided by the number of customer equivalent units that can be served at the existing capacity.

Defining Capitalization Fees

The first step in establishing cost-based CAP Fees is to gain a better understanding of the definition of a CAP Fee. For purposes of this review, a CAP Fee or "system development charge" is used as interchangeable terms and hold the same meaning and intent. A system development charge is defined as follows:

> *"These fees are one-time charges to customer when they connect to the system or by developers as part of the permitting or planning process.[1]"*

System development charges, or CAP Fees as the City refers to them, are a financial contribution to reimburse existing customers for the available capacity in the existing system. The main objective of a CAP Fee is to assess the benefiting (connecting) party their proportionate share of the cost of infrastructure required to provide them service (i.e., accommodate capacity needs).

CAP Fees are generally imposed as a condition of service. The objective of a CAP Fee is not to generate funds for a utility, but to assure that all customers seeking to connect to the utility's system bear an equitable share of the cost of capacity that has been invested in the existing system. The development of the CAP Fee is based on a customer's equitable share of the existing system. While some customer demands may vary, the purpose of the CAP Fee is not to exactly reflect the capacity requirements of each customer, but place customers in like groups similar to the rate setting process.

By reviewing and updating the CAP Fees, the City continues an important step in providing adequate infrastructure to new customers in a cost-based, fair, and equitable manner. The City should set CAP Fees which are cost-based while balancing the needs of the City and development community.

Key Assumption of the CAP Fee Development

In developing the wastewater capitalization CAP Fees, a number of key assumptions are utilized. These are as follows:

- ✓ The City's asset records are used to determine the existing plant assets and accumulated depreciation.
- ✓ The City provided outstanding principal on debt issued to fund sewer infrastructure.
- ✓ The Engineering News Record Construction Cost Index (CCI) was used to inflate the original cost of assets to an estimated replacement cost.

Development of the Proposed CAP Fee

The CAP fee is based on the capacity of the existing system. This component results in new customers reimbursing existing customers for the new customer's equitable share of the available capacity within the existing system that has been funded by existing customers. The process of

[1] Financing and Charges for Wastewater Systems, Manual of Practice No. 27. Water Environmental Federation, Fourth Edition, Page 200.

calculating the capitalization fees is based upon a multi-step process. In summary form, these steps are as follows:

- ✓ System planning criteria
- ✓ Valuation of the fixed assets
- ✓ Existing system capacity

Capitalization Fees

The City's current fees are based the number of population equivalents (PE's) which vary by the type of customer. The established CAP fee is then multiplied by the PE units which is then multiplied by the customer class multiplier. The current single-family multiplier is 2.39 which was the people per household average for a single family home. Table ES-5 Provides current base CAP fee.

Table ES-5
Current Base CAP Fee by System Component

Component	Total System Fee
Treatment	$1,115
Collection Mains	177
Lift Stations	11
Compost	7
General Plant	73
TOTALS Per PE	**$1,383**

Table ES-6 shows the multiplier, or PE units, for each customer type and the current calculated CAP Fee. As part of the CAP Fee update the PE Units will be reviewed and updated to reflect current conditions.

Table ES-6 Current Wastewater CAP Fee			
Customer Type	**PE Units**		**Calculated CF**
Residential			
Single Family Dwelling	2.39	per unit	3,305
Multiple Family Dwelling (2 units)	2.39	per unit	3,305
Commercial-Low			
Bar or tavern	0.20	per seat	277
Factories	0.10	per 100 sq. ft.	138
Hospital	2.50	per bed	3,458
Institution (other than hospital)	1.25	per bed	1,729
Mobile Home	2.32	per unit	3,305
Multiple Family Dwelling (>2 units)	2.20	per unit	3,043
Office Space	0.10	per 100 sq. ft.	138
Retail Space	0.05	per 100 sq. ft.	69
School (without meal preparation)	0.08	per student/staff	111
Warehouse	0.04	per 100 sq. ft.	55
Commercial-Medium			
Hotel or motel (without kitchen facilities in room)	1.30	per unit	1,798
Commercial-High*			
Bakeries	0.20	per seat	351
Bowling Alley	1.00	per lane	1,755
Funeral homes	0.05	per 100 sq. ft.	88
Grocery markets with garbage disposals	0.04	per 100 sq. ft.	70
Hotel or motel (with kitchen facilities in room)	1.60	per unit	2,807
Laundry, commercial	1.90	per washing machine	3,334
Microbrewery		n/a	n/a
Restaurants	0.20	per seat	351
RV Parks		n/a	n/a
School (with meal preparation)	0.13	per student/staff	228
Theaters (indoor and outdoor)	0.03	per seat	53

For customers who do not fit into the classes in Table ES-6, a fee is calculated based on the customer's specific wastewater characteristics such as flow (volume), Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), Ammonia, and Phosphorus. In addition to the CAP Fee the wastewater utility also applies a high strength surcharge to Commercial High customers to reflect the capacity impacts higher strength wastewater places on the system. The Current surcharge for high commercial customers is $371.54 per PE.

Summary of the CAP Fee Analysis

The CAP fee was updated to reflect the value of current plant assets (e.g., infrastructure). Table ES-7 provides the updated CAP Fee per PE.

Table ES-7
Proposed Base CAP Fees

Component	Total System Fee
Treatment	$2,559
Collection Mains	672
Lift Stations	53
Compost	66
General Plant	0
Debt Service Credit	(414)
TOTALS Per PE	$2,936

Table ES-8 provides the proposed CAP fee by customer type based on the updated analysis. The PE units have been updated based on data provided from the latest US Census bureau data for the City of Coeur d'Alene. As a point of reference, the CAP fee calculation is based on the methodology as provided in the recent and historical legal decisions. This resulted in a CAP fee of $2,936 per PE which results in a CAP Fee of $6,665 for a for a single family customer.

Table ES-8
Proposed Wastewater CAP Fee

Customer Type		PE Units		Calculated CF
Residential				
	Single Family Dwelling	2.27	per unit	$6,665
	Multiple Family Dwelling (2 units)	2.27	per unit	6,665
	Accessory Dwelling Unit	2.20	per unit	6,460
Commercial-Low				
	Bar or tavern	0.20	per seat	$587
	Coffee (or other beverage) Kiosk	0.77	per Kiosk	2,261
	Factories	0.10	per 100 sq. ft.	294
	Hospital	2.50	per bed	7,341
	Institution (other than hospital)	1.25	per bed	3,670
	Mobile Home	2.27	per unit	6,665
	Mobile or Temporary Vendors	0.70	per vendor or space	2,055
	Multiple Family Dwelling (>2 units)	2.20	per unit	6,460
	Office Space	0.10	per 100 sq. ft.	294
	Retail Space	0.05	per 100 sq. ft.	147
	Recreational Vehicle Park	2.08	per RV site	6,107
	School (without meal preparation)	0.08	per student/staff	235
	Warehouse	0.04	per 100 sq. ft.	117
Commercial-Medium				
	Hotel or motel (without kitchen facilities in room)	1.30	per unit	$3,817
Commercial-High*				
	Bakeries	0.20	per seat	$814
	Bowling Alley	1.00	per lane	4,070
	Funeral homes	0.05	per 100 sq. ft.	203
	Grocery markets with garbage disposals	0.04	per 100 sq. ft.	163
	Hotel or motel (with kitchen facilities in room)	1.60	per unit	6,511
	Laundry, commercial	1.90	per washing machine	7,732
	Brewery	2.30	per Barrels of production capacity	9,360
	Restaurants	0.20	per seat	814
	School (with meal preparation)	0.13	per student/staff	528
	Theaters (indoor and outdoor)	0.03	per seat	122

As noted earlier the Commercial high customers are subject to high strength surcharge. This charge was also update during this analysis. The high strength surcharge has increased to $1,133.35 which is reflected in the CAP Fee calculated in Table ES-8.

Summary

This completes the analysis for the City's wastewater utility rate and fee study. It is recommended that rates be adjusted by the proposed rate increases of 5.0% annually in 2023 through 2027. The

CAP Fee has been updated based on existing capacity, total population equivalents, and replacement cost of current plant assets. A full and complete discussion of the development of the comprehensive rate study and the proposed rate adjustments can be found in following sections of this report.

1 Introduction

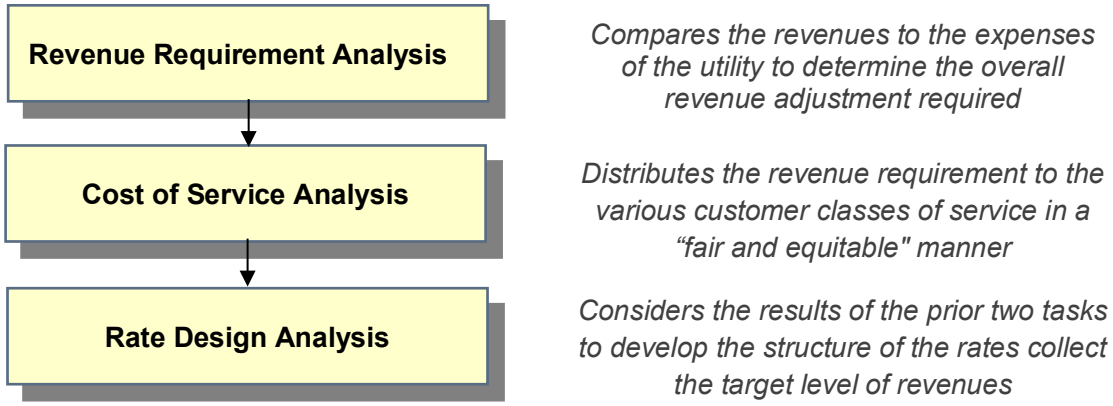
The City of Coeur d'Alene (City) retained HDR Engineering, Inc. (HDR) to perform a comprehensive rate and fee study for its wastewater utility. A comprehensive rate and fee study determines the adequacy of the existing wastewater rates and fees and provides the basis to maintain cost-based rates and fees. This report describes the methodology, findings, and conclusions of the wastewater rate and fee study process undertaken for the City.

This study determined whether existing rates are adequate to meet the utility's O&M and capital expenses with revenues received from customers. Rates set too low may result in insufficient funds to maintain system integrity. The study provides a basis for making rate adjustments; as well as, addressing the equity of the City's current rates.

1.1 Overview of the Rate Study Process

This Comprehensive study consists of three interrelated analysis performed for the wastewater utility. Figure 1-1 provides an overview of these analyses.

Figure 1-1
Overview of the Comprehensive Wastewater Rate Setting Process



A revenue requirement analysis is concerned with the overall funding sources and expenses of the utility. From this analysis, a determination can be made as to the overall level of adjustment to rates. Next, a cost of service analysis is performed to proportionally distribute the revenue requirement to the customer classes of service (e.g., residential, commercial). Finally, once an overall level of rate adjustment is determined and a proportional distribution of those costs, the last step of the rate study process is the design of rates to collect the appropriate level of revenues while considering the other rate design goals and objectives of the utility (e.g., revenue stability, cost-based, continuity in philosophy). As a part of this study, HDR developed each of these analyses to analyze the City's current wastewater rates. At the same time HDR utilized generally accepted cost of service and rate setting techniques, methodologies, and industry best practices in the development of the City's wastewater rate and fee study

1.2 Report Organization

This report is organized as follows:

- ✓ Section 1 provides background information about the utility rate setting process
- ✓ Section 2 discusses the financial and rate setting policies established for the wastewater utility.
- ✓ Section 3 financial/rate setting policies
- ✓ Section 4 reviews the revenue requirement analysis
- ✓ Section 5 reviews the cost of service analysis
- ✓ Section 6 reviews the rate design analysis
- ✓ Section 7 reviews the update of the capitalization fees

A technical appendices is attached at the end of the report which provides the detailed analysis used in preparation of this report.

1.3 Summary

This report will review the comprehensive wastewater rate and fee analysis prepared for the City. This report has been developed utilizing generally accepted rate setting methodologies. The next section of the report provides an overview of the basic theory and methodology used to establish cost-based rates. This provides the methodological foundation for the development of the City's wastewater rates.

2 Overview of the Rate Setting Process

This section provides background information about the rate setting process, including descriptions of generally accepted principles, types of utilities, methods of determining the revenue requirement, the cost of service approach, and rate design. This information is useful for gaining a better understanding of the details presented in this report.

2.1 Generally Accepted Rate Setting Principle

As a practical matter, all utilities should consider setting rates around some generally accepted or global principles and guidelines. Utility rates and fees should be:

- ✓ Cost-based, equitable, and set at a level that meets the utility's full revenue requirement
- ✓ Easy to understand and administer
- ✓ Designed to conform with generally accepted rate setting techniques
- ✓ Stable in their ability to provide adequate revenues for meeting the utility's financial, operating, and regulatory requirements
- ✓ Established at a level which is stable from year-to-year from a customer's perspective

2.2 Types of Utilities

Utilities are general divided into two types:

- ✓ **Public utilities** are usually owned by a city, county, or special district, and are theoretically operated at zero profit. A public utility is locally owned since its customers are also its owners.

  Public utilities are capitalized, or financed, by issuing debt and soliciting funds from customers through direct capital contributions or user rates. Public or municipal utilities are typically exempt from state and federal income taxes. A publicly elected city council or board of trustees usually regulates public utilities.

- ✓ **Private utilities** are "for profit" enterprises and are owned by a private company and/or stockholders. The shareholders are, in essence, the owners of the private utility. Therefore, the owners of a private utility may not be customers or local citizens, but rather numerous individuals or shareholders spread across the United States.

  A private utility is capitalized by issuing stock to the general public. Private utilities are taxable entities. Given their for-profit status, their rates and operations are generally regulated by a state public utility commission or other regulatory body.

As a point of reference, the City's wastewater utility is a public utility, and the analysis has been based on the methodology generally utilized by public utilities.

2.3 Determining the Revenue Requirement

Because public and private utilities have very different administrative and financial characteristics, their methods differ for determining revenue requirements and setting rates.

2.3.1 Public Utilities

Public utilities generally use the "cash basis" approach for establishing their revenue requirement and setting rates. This approach conforms to most public utility budgetary requirements and the calculation is easy to understand. A public utility:

- ✓ Totals its cash expenditures for a period of time to determine required revenues.
- ✓ Adds operation and maintenance (O&M) expenses to any applicable taxes or transfer payments to determine total operating expenses. Operation and maintenance expenses include the materials, electricity, labor, supplies, etc. needed to keep the utility functioning.
- ✓ Calculates capital costs by adding debt service payments (principal and interest) to capital improvements financed with rate revenues. In lieu of including capital improvements financed with rate revenues, a utility sometimes includes depreciation expense to stabilize annual revenue requirement.

Under the cash basis approach, the sum of the capital and operating expenses equals the utility's revenue requirement during any period of time (see Table 2-1).

Note that the two portions of the capital expense component, debt service and capital improvements financed from rates, are necessary under the cash basis approach because utilities generally cannot finance all their capital facilities with long-term debt. An exception occurs if a public utility provides service to a wholesale or contract customer. In this situation, a public utility could use the "utility basis" approach (see below) to earn a fair return on its investment.

Table 2-1
Cash versus Utility Basis Comparison

Cash Basis		Utility Basis (Accrual)	
+	O&M Expense	+	O&M Expense
+	Taxes or Transfer Payments	+	Taxes or Transfer Payments
+	Capital Improvements Financed with Rate	+	Depreciation Expense
+	Debt service (Principal + Interest)	+	Return on Investment
=	Total Revenue Requirement	=	Total Revenue Requirement

2.3.2 Private Utilities

Most private utilities use a "utility basis" or accrual approach for establishing revenue requirement and setting rates (see Table 2-1). A private utility typically:

- ✓ Totals its O&M expenses, taxes, and depreciation expense for a period of time. Depreciation expense is a means of recouping the cost of capital facilities over their useful lives and generating internal cash.
- ✓ Adds a fair return on investment.

Private utilities must pay state and federal income taxes along with any applicable property, franchise, sales, or other form of revenue taxes. The return portion of this type of revenue requirement pays for the private utility's interest expense on indebtedness, provides funds for a return to the utility's shareholders in the form of dividends, and leaves a balance for retained earnings and cash flow purposes.

2.4 Analyzing Cost of Service

After the total revenue requirement is determined, it is distributed to the users of the service. The distribution, usually analyzed through a cost of service study, reflects the cost relationships for producing and delivering services. A cost of service study requires three steps:

1. Costs are ***functionalized*** or grouped into the various cost categories related to providing service (pumping, treatment, collection, etc.). This step is often largely accomplished by the utility's chart of accounts within its accounting system.
2. The functionalized costs are then ***allocated*** to specific cost components. Allocation refers to the arrangement of the functionalized data into cost components. For example, a wastewater utility's costs are typically classified as volume, strength, or customer-related.
3. Once the costs are allocated into components, they are ***distributed*** to the customer classes of service (residential, commercial). The distribution is based on each customer class's relative, or proportional, contribution to the cost component. For example, customer-related costs are distributed to each class of service based on the total number of customers in that class of service. Once costs are distributed, the required revenues for achieving cost-based rates can be determined.

2.5 Designing Rates

Rates that meet the utility's objectives are designed based on both the revenue requirement and the cost of service analysis. This results in rates which are cost-based; however, rate design may also consider factors such as revenue stability, affordability, continuity of past rate philosophy, economic development, ease of administration, and customer understanding.

2.6 Economic Theory and Rate Setting

One of the major justifications for a comprehensive rate study is founded in economic theory. Economic theory suggests that the price of a commodity must roughly equal its cost if equity among customers is to be maintained. This statement's implications on utility rate designs are significant. For example, a wastewater utility usually incurs strength-related costs when treating high-strength wastewater. It follows that the customers who have higher strength wastewater flows and create additional treatment costs should pay for those strength-related facilities in proportion to their contribution to total plant loadings. When costing and pricing techniques are refined, consumers have a more accurate picture of what the commodity costs to produce and deliver. This price-equals-cost concept provides much of the basis for the subsequent analysis and comments.

2.7 Summary

This section of the report has provided a brief introduction to the general principles, techniques, and economic theory used to set utility rates. These principles and techniques will become the basis for the City's analysis. The next section will review the development of the financial and rate setting policies established for this study.

3 Financial/Rate Setting Policies

A key aspect of developing the comprehensive rate and fee study is the use of generally accepted policies to maintain a prudently funded utility. As part of the development of the City's wastewater analyses several key financial policies were included. These financial policies followed best management practices and guidelines as established by the Government Finance Officers Association (GFOA) and were developed as part of the previous City's rate studies.

3.1 Basis for Establishing Financial Policies to Aid in Setting Rates

The use of generally accepted financial policies provides the foundation and guidelines around which rates are established. They, in essence, establish the "ground rules" by which the analysis is developed. The outside financial community (rating agencies) views the use of financial policies as a strong indicator of the City's dedication and commitment to managing the wastewater utility in a financially prudent and sound manner.

3.2 Key Financial/Rate Setting Policies

Provided below is a summary of the key financial and rate setting policies that were taken into consideration during the development of the City's wastewater rate and fee study.

3.2.1 Reserve Funds

The City shall strive to maintain adequate fund balances (reserves) in order to provide sufficient cash flows to meet operating and capital expenses.

Maintaining adequate reserve levels will allow the City to manage the various financial fluctuations. Furthermore, these reserve funds are to provide working capital for normal and ordinary operations, while also providing the ability to address economic downturns and system emergencies. As a part of the policy statement, specific policies regarding the following reserve funds were established.

- ✓ Operating Cash (a minimum funding of 60 days of O&M)
- ✓ Equipment Replacement Reserve (minimum annual replacement value)
- ✓ Capitalization Reserve (no minimum)
- ✓ Bond Reserve (annual debt service payment)

3.2.2 Establishing Rates and Fees

The City's wastewater rates, and capital fees should be reviewed annually to provide greater assurance of sufficient operating revenues, maintain sufficient reserves, and provide an opportunity for the City to implement a planned and smooth transition for any needed rate adjustments.

This policy does not imply that rates must be adjusted each year, simply that the rates are reviewed in the context of these policies to assure that they are adequately funding the utility. This policy provides a detailed discussion of the analytical approach or methodology that should be used in reviewing the City's wastewater rates and fees. This includes the development of the following analyses:

1. Revenue Requirement Analysis
2. Cost of Service Analysis
3. Rate Design Analysis

In addition, the section of the financial policies addresses the establishment of Capitalization Fees (CAP Fees). CAP Fees are related to the cost of the existing capacity to serve new customers. CAP Fees should be established such that they reflect the City's policy or philosophy as it relates to the sharing of growth-related costs between existing customers and new customers connecting to the system.

3.2.3 Debt Issuance and Debt Management

The issuance of long-term debt is a valuable funding resource for the utility. Used appropriately and prudently, long-term debt can help minimize the utility's rates over time. The City shall minimize dependency on debt financing capital projects. Annual renewal and replacement capital projects should be adequately funded from rates. Long-term debt should be considered for unusually large capital improvement projects or greater than normal capital plans.

As noted, the prudent use of long-term debt to finance capital projects can be an effective tool to help the City minimize rates over time. This actually begins by providing a clear policy related to the funding of renewal and replacement projects. Adequately funding these "on-going" capital projects through rates will help minimize long-term borrowing over time. When long-term debt is used, it will likely be for significant non-recurring or unplanned events. The City will attempt to use the lowest cost available debt which does not impose any burdensome covenants or reporting requirements. When debt is issued, the City will, for financial planning purposes, target a 1.50 debt service coverage ratio when legally required. In total, including all debt even those without debt service coverage requirements, the City will target a 1.30 debt service coverage ratio.

3.3 Summary

The previous policies were used as guidelines for the development of the City's wastewater rate and fee study. As the City continues to update the wastewater rate and fee studies these policies should be reviewed to determine if they are still relevant and appropriate. The next section will detail the development of the utility revenue requirement analysis.

4 Development of the Revenue Requirement

This section of the report describes the development of the wastewater revenue requirement analysis for the City's wastewater rate study. The revenue requirement analysis is the first analytical step in the comprehensive process. This analysis determines the adequacy (level) of the City's overall wastewater rates. From this analysis, a determination can be made as to the overall level of wastewater rate (revenue) adjustment needed to provide adequate and prudent funding for both operating and capital needs. One of the main objectives of a wastewater rate study is to develop cost-based and equitable rates while minimizing the impacts to the utility's customers.

In developing the wastewater revenue requirement, it was assumed the utility must financially "stand on its own" and be properly funded. As a result, the revenue requirement analysis as developed herein assumes the full and proper funding needed to operate and maintain the system on a financially sound and prudent basis over a long-term period. This results in stable rate levels from both the City's and customers perspective and minimizes large rate swings over time.

Provided below is a detailed discussion of the development of the revenue requirement analysis for the City's wastewater utility.

4.1 Establishing a Time Frame and Approach

The first step in calculating the revenue requirement was to establish a time frame for the revenue requirement analysis. For this study, the revenue requirement was developed for a ten-year projected time period (FY 2023 – FY 2032). For purposes of the study, the focus for the analysis was on a five-year time period of FY 2023 through FY 2027, or the next five-year rate setting period. However, it is important to review this extended time period as significant capital improvements are necessary to meet regulatory requirements. By anticipating future financial requirements, the City can begin planning for these changes sooner, thereby minimizing short-term rate impacts and overall long-term rates.

The second step in determining the revenue requirement for the City was to decide on the basis of accumulating costs. As noted, for the City's revenue requirement a cash basis approach was utilized. As was discussed in Section 2, the cash basis approach is the most common methodology used by municipal utilities to set their revenue requirement. Section 2 of this report also provided a simple overview of the cash basis methodology. The actual revenue requirement developed for the City was customized to follow the City's system of accounts (budget documents). However, even with these modifications, the City's revenue requirement still contains the four basic cost components of a cash basis methodology. Table 4-1 provides a summary of the specific components within the cash basis approach used to develop the City's revenue requirement.

Table 4-1
Overview of the Wastewater Utility Cash Basis Revenue Requirement

+ Wastewater Operation and Maintenance Expenses
  - ✓ Personnel expenses
  - ✓ Administration expenses
  - ✓ Treatment expenses
  - ✓ Collection expenses
  - ✓ Sludge Management expenses
  - ✓ Reporting expenses

+ Net Capital Projects Funded from Rates[1]

+ Debt Service (P + I) – Existing and Future

= Total Wastewater Revenue Requirement

− Miscellaneous Revenues

= Net Revenue Requirement (Balance Required from Rates)

[1] Net Capital Projects Funded from Rates

+ Total Wastewater Capital Improvement Projects

Funding Sources Other than Rates
  - ✓ Capitalization Fees
  - ✓ Capital Reserves

− ✓ Long term debt issues

= Net Capital Improve. Funded From Rates

Given a time period around which to develop the revenue requirement and a method to accumulate the appropriate costs; the focus shifts to the development and projection of the revenues and expenses of the wastewater utility.

The primary financial inputs in this process were the City's historical billing records, current adopted operating budget, and current capital improvement plan. Presented below is a detailed discussion of the steps and key assumptions in the development of the City's wastewater projected revenues and expenses.

4.2 Projection of Revenues

The starting point of the analysis is the projection of revenues received by the City for providing wastewater services. These revenue sources include rate revenues, or revenues received from customers, as well as miscellaneous revenues received as part of operating a wastewater utility. Provided below is a summary of the revenues received by the City's wastewater utility. It should be noted that this section does not include a discussion on revenues received to fund capital improvements. These funding sources are discussed in the capital funding section of this report as they are a direct funding source for capital improvements.

4.2.1 Projecting Wastewater Rate Revenues

The first step in developing the revenue requirement was to develop a projection of rate revenues, at present rate levels. In general, this process involved developing projected billing units for each

customer group. The billing units for each customer group were then multiplied by the applicable current rates. This method of independently calculating rate revenues provides the relationship between the projected rate revenues used within the analysis tied to the projected billing units (i.e., customers and usage). The projected billing units by class of service were based on historical billing records.

Currently, the City has two primary classes of service: residential and commercial customers. The majority of the City's rate revenues are derived from residential customers. In total, at present rates, the City is projected to receive approximately $14.2 million in rate revenue in FY 2023. Over the planning horizon of this study, customer growth is assumed to increase 1.0% annually while actual wastewater volume was assumed to grow at 0.3% annually. With the customer growth and volume growth rate revenue at the 2022 rates is expected to be $14.6 million in 2027 and $15.2 in 2032.

4.2.2 Projecting Miscellaneous Revenues

In addition to rate revenues, the City also receives a variety of miscellaneous revenues which includes interest on investments, compost sales, and other revenues. The utility is projected to receive approximately $85,500 in miscellaneous revenues in FY 2023. The annual level of miscellaneous revenues fluctuates depending on the amount of interest earnings on existing fund balances.

On a combined basis, taking into account the rate revenues along with miscellaneous revenues, the City's total projected revenues are expected to be approximately $14.3 million in FY 2023, increasing slightly to $15.4 million in FY 2032 before the projected additional revenue (rate) adjustments.

4.3 Projecting Operation and Maintenance Expenses

Operation and maintenance (O&M) expenses are incurred by the City to operate and maintain existing plant in service. In general, operation and maintenance expenses are grouped into several different functional categories (see Table 4-1). HDR reviewed the City's FY 2023 budget and determined it contained sufficient detail to develop the revenue requirement analysis. Therefore, in developing this analysis, HDR maintained the overall functional nature of the City's system of accounts (i.e., treatment, collection, personnel, etc.).

In discussions with City staff a few O&M increases outside of normal inflation were expected. One full time equivalent (FTE) was added to both administrative and treatment personnel in FY 2023 and 2 FTEs were added to collection in FY 2029. The City's capital plan includes Ultraviolet (UV) disinfection upgrades which are expected to increase the wastewater department's electric consumption when they are in service. This increase is estimated to be approximately $400,000 when the upgrades are operational.

Based on the FY 2023 budgeted expenses, escalation factors were developed for the basic types of expenses the City incurs. The escalation factors used in the analysis were salaries and wages, office and operating supplies, professional services, machinery, and equipment, purchased power, other utilities, repairs and maintenance, and miscellaneous. The escalation factors developed for the projection of the City's O&M expenses were in the range of two to six percent per year, depending on the type of cost and recent inflationary trends. Provided in Table 4-2 is a summary of the escalation factors create with the study.

Table 4–2
Summary of the Escalation Factors

Type of Expense	Escalation Rate
Salaries and Wages	3.0%
Personnel Benefits	3.0%
Interfund Charges	3.0%
Office and Operating Supplies	3.0%
Professional Services	5.0%
Machinery and Equipment	6.0%
Operational Rentals and Leases	5.0%
Purchased Power	5.0%
Other Utilities	5.0%
Repairs and Maintenance	6.0%
Cost Share Reimbursements	3.0%
Miscellaneous	2.0%

HDR escalated the O&M expenses based on the escalation factors shown in Table 4-2. Total O&M expenses for the City are projected to be approximately $7.6 million in FY 2023, increasing by an average annual rate of 4.3% to approximately $11 million by FY 2032 primarily as a result of assumed inflation as well as the estimated increased operation costs from the expansion of the wastewater facility.

4.4 Projecting Capital Project Funding

The capital plan used in this rate study includes much higher capital costs that was assumed in the 2018 study. Total wastewater capital projects for the period of FY 2023 to FY 2032 amount to $82.7 million. The City's capital projects can be summarized by function, such as treatment, collection, compost, and general plant. This method for grouping capital projects is helpful for allocation purposes and categorizing what types of projects the City is funding on an annual basis. A summary of the wastewater capital improvement projects by functional component is provided in Table 4-3. A more detailed summary of the capital projects is provided in the Technical Appendix.

Table 4–3
Summary of the Wastewater Utility Capital Improvement Plan (000's)

Project Description	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
CIP Plan										
Treatment	$5,540	$9,624	$6,583	$6,385	$3,276	$8,707	$0	$4,201	$2,792	$0
Collection System	2,357	875	898	921	945	969	995	1,021	1,047	1,074
Compost	0	0	598	0	0	0	0	0	0	0
General Plant	1,750	3,255	3,076	3,156	1,978	2,029	2,109	2,136	2,192	2,249
Total Revenue Requirement	**$9,647**	**$13,753**	**$11,154**	**$10,462**	**$6,199**	**$11,706**	**$3,103**	**$7,357**	**$6,031**	**$3,323**
Capital Reserve Funding	$0	$0	$0	$0	$0	$1,294	$3,247	$2,863	$919	$3,877
Total Capital Investment	$9,647	$13,753	$11,154	$10,462	$6,199	$13,000	$6,350	$10,220	$6,950	$7,200
Capital Plan Funding										
Operating Fund Reserve	$600	$5,087	$2,235	$2,303	$425	$0	$0	$0	$0	$0
Capital Improvement Reserve	3,378	0	0	0	0	0	0	0	0	0
CAP Fee Fund	1,069	3,966	4,069	2,959	124	0	0	3,520	0	0
Low Interest Loan	0	0	0	0	0	7,000	0	0	0	0
Rate Funding	4,600	4,700	4,850	5,200	5,650	6,000	6,350	6,700	6,950	7,200
Total Capital Funding	**$9,647**	**$13,753**	**$11,154**	**$10,462**	**$6,199**	**$13,000**	**$6,350**	**$10,220**	**$6,950**	**$7,200**

The City's capital improvement plan can be grouped in a different way that reflects how the impact of the capital projects have on the system. These groupings include:

• Renewal and replacements	$40.5 million
• Expansion or capacity related	18.7 million
• System upgrades	16.8 million
• Facility improvements	3.9 million
• Planning and studies	2.3 million
• Equipment	0.5 million
Total	$82.7 million

Grouping capital projects in the above categories is helpful when considering how those projects will be funded. The totals by project type are approximate, as some projects could be considered a combination of expansion and renewal and replacement in nature.

For this study, Renewal and replacement projects are funded by reserves and rate funded capital. A common industry standard for rate funded capital is, at a minimum, should be equal to or greater than annual depreciation expense from rates every year. Annual depreciation expense reflects the current investment in plant being depreciated or "losing" its useful life. Therefore, this portion of infrastructure needs to be replaced to maintain the existing level of infrastructure. However, annual depreciation expense reflects an investment in infrastructure an average of 15 years ago, assuming a 30-year depreciable (useful) life. Simply funding an amount equal to annual depreciation expense is not a sufficient level of funding to replace the existing or depreciated facility. For this analysis sets rate funded capital was set at $4.6 million in 2023 and increases to $7.2 million in 2032. The increase in rate funded capital in progressive years enables the City to be better prepared to fund aging infrastructure when it is beyond its useful life.

Expansion projects are projects that increase the system's ability to serve more customers. The majority of the cost of expansion projects are assumed to be funded with CAP Fee funds. CAP fee funds are funds collected from new customers as a buy-in to the existing system.

The remaining projects are funded by reserves and a low interest loan assumed in 2028. The low interest loan is beyond the five-year rate setting period and the City should reassess the needs for this loan approximately one year in advance of 2028 to determine if the loan is actually necessary.

The funding plan in this study was arranged to minimize rates to the greatest extent possible assuming long-term debt, which in part, will be funded through new customer growth (CAP Fees) and rates.

4.5 Projection of Annual Debt Service

The final component of the City's revenue requirement is annual debt service. At the present time, the City has three outstanding debt obligations, the 2013 refunding loan, and a 2021 bond with an A and B series.

Debt service on the City's existing debt is $3.5 million per year. Given the capital improvement plan discussed above, it is projected that the City will need to issue additional debt over the projected time frame. From the capital plan noted above, the assumed additional long-term borrowing needed will be in 2028. The annual debt service payments would begin in 2028 and be approximately $462,000 per year increasing the total debt service to $4 million per year. An important aspect of issuing debt is being able to afford annual payments. Debt service coverage (DSC) is a common way of determining if an institution can afford their debt load. Generally, a debt service coverage ratio of greater than 1.25 is assumed to be a good signal that the institution can repay their debt. Assuming 5% rate adjustments over the five-year rate setting period, the City is projected to have a debt service coverage ratio greater than 2.0.

4.6 Summary of the Revenue Requirement Analysis

Given the above projections of revenues and expenses, a summary of the revenue requirement for the City's wastewater utility can be developed. In developing the final revenue requirement, consideration was given to the financial planning considerations of the City. In particular, emphasis was placed on attempting to minimize rates, yet still have adequate funds to support the operational activities and capital projects throughout the projected time period as well as meeting the target DSC. Presented in Table 4-4 is a summary of the wastewater revenue requirement. A detailed analysis of the revenue requirement can be found in the Technical Appendices.

Table 4–4
Summary of Wastewater Utility Revenue Requirements ($000s)

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Sources of Funds –										
Rate Revenues	$14,219	$14,324	$14,430	$14,537	$14,645	$14,754	$14,864	$14,975	$15,087	$15,200
Misc. Revenues	86	140	104	86	76	80	86	90	93	96
Total Source of Funds	$14,304	$14,464	$14,534	$14,623	$14,721	$14,834	$14,949	$15,065	$15,180	$15,296
Applications of Funds –										
Total O&M Expenses										
Wastewater Personnel Costs	$3,587	$3,694	$3,805	$3,919	$4,037	$4,158	$4,533	$4,669	$4,809	$4,953
Administration	1,172	1,211	1,251	1,293	1,336	1,380	1,426	1,474	1,523	1,575
Treatment	2,507	2,602	2,701	3,211	3,338	3,472	3,611	3,756	3,908	4,066
Collection	153	160	167	174	182	190	199	208	217	227
Sludge Management	146	151	156	162	168	174	181	187	194	201
Rate Funded Improvements	4,600	4,700	4,850	5,200	5,650	6,000	6,350	6,700	6,950	7,200
Debt Service	3,013	3,013	3,013	3,013	3,015	3,476	3,479	3,470	3,476	3,475
Total Application of Funds	15,177	15,530	15,943	16,972	17,726	18,850	19,779	20,463	21,077	21,697
Bal./(Defic.) of Funds	($873)	($1,067)	($1,410)	($2,349)	($3,005)	($4,016)	($4,829)	($5,399)	($5,897)	($6,401)
Balance as a % of Rates	6.1%	7.4%	9.8%	16.2%	20.5%	27.2%	32.5%	36.1%	39.1%	42.1%
Proposed Rate Adjustment	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	2.0%	2.0%	2.0%	2.0%
Revenue from Rate Adj.	$328	$1,063	$1,846	$2,680	$3,567	$4,511	$5,239	$5,683	$6,142	$6,616

It is important to note the annual deficiencies (line noted as "Bal/(Defic.) of Funds") in Table 4-4 are cumulative. That is, any adjustment in the initial years will reduce the cumulative deficiency in the following years. The results of the revenue requirement analysis indicate a deficiency of funds over the planning period. The deficiency ranges from approximately $873,000 in FY 2023 to $6.4 million by FY 2032. These results indicate that the City's wastewater rates will need to increase by approximately 42% over the next ten years, and 20.5% for the five-year rate setting period.

The City's fiscal year is from October 1 to September 30, and they have historically set new rates as of April 1st. Given the mid fiscal year rate adjustment implementation the analysis assumes revenue collected by a 5% rate adjustment will have roughly half that impact on revenue collections for the year implemented. The calculation of the proposed rate adjustments is based on the annual balance or deficiency of funds. The annual balance or deficiency of funds is divided by the current rate revenues and multiplied by approximately 50% to determine the percentage rate adjustment necessary to fund annual operating and capital expenses. The proposed rate adjustments were set to be an evenly distributed rate adjustment over the next five-years. The rate deficiencies in 2023 is funded from reserves but it is projected to be made up in the remaining rate setting period.

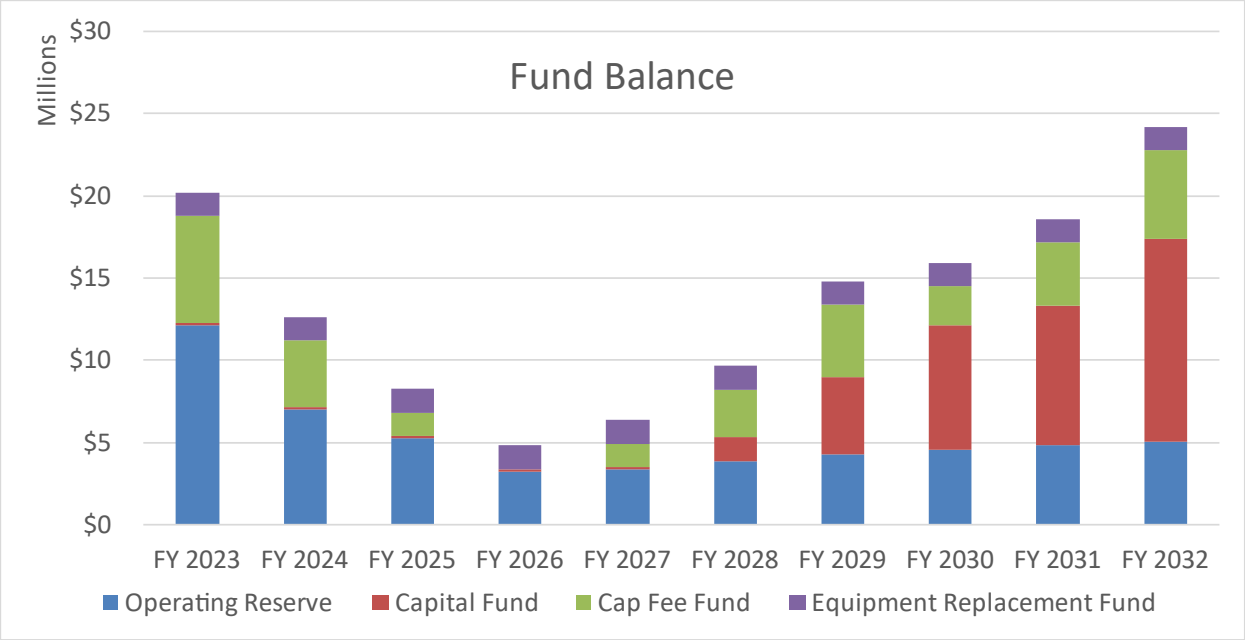
4.7 Projection of Debt Service Coverage Ratios

Generally speaking, long-term debt includes rate covenants requiring rates to be set at an adequate level to assure meeting a specified minimum debt service coverage ratio (DSC). This rate covenant is a financial measure of the utility's ability to repay the debt. Even absent a required minimum DSC ratio it is important for the City to ensure that current revenues are sufficient to properly fund current, and future, annual debt service payments. In general, rates must be established at a level such that revenues less operating expenses will be 1.25 times greater than the maximum annual debt service payment on the outstanding debt. Given a minimum DSC, it is often prudent to plan or set rates at a level which exceeds this minimum. Based on the financial policies the DSC, for all outstanding debt, is set at 1.35. This helps to assure meeting the minimum DSC, and at the same time, provides a slight cushion for unexpected changes. This should also strengthen the City's ability to issue long-term debt in the future, if necessary, since rating agencies would review the City's past financial performance/results, along with their future ability to repay long-term debt.

Absent the proposed rate adjustments, the City debt service coverage ratio is projected decline over the 10 years of the analysis below required minimum levels. This is due to the increases in O&M and the issuance of debt in 2028. After the proposed rate adjustments, the City will be able to be well above the target DSC for the time period reviewed.

4.8 Projection of Ending Reserve Fund Levels

Reserves are a critical aspect of a utility's financial standing. Maintaining prudent ending reserve balances provide several benefits to a utility. First, it provides a safety net to fund unforeseen increases in annual O&M costs. Second, when issuing long-term debt, the financial market requires sufficient reserves prior to issuing additional debt. Finally, and specific to the City's analysis, given the uncertainty of available long-term funding for future improvements, it is critical that the City be able to cash finance portions of the project if long-term debt is not available. Based on the assumptions of the analysis, the projected financial plan has maintained reserve levels that exceed the minimum reserve levels. The following chart shows the cumulative ending fund balance.



The chart shows a significant decline in fund balance in the 2023 through 2026 period. This decline is caused by the use of reserves for capital projects. Notably beyond 2026 the reliance on fund balance to fund capital stops and fund balances recover through 2032.

4.9 Consultant's Recommendations

Based on the revenue requirement analysis developed, HDR recommends the City increase the overall revenue levels of the wastewater utility based on the proposed rate adjustments shown in Table 4-4 during the next five-year period. The first proposed rate adjustment would be in FY 2023. Subsequent years of adjustments, through FY 2027 are proposed, to fund capital costs and increasing O&M costs. Table 4-5 shows the proposed rate transition plan for the next five-year period. The proposed rate adjustments would allow the City to fund projected O&M and capital needs over the next five-year period for the wastewater utility.

Table 4–5
Summary of the Proposed Annual Adjustments

FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
5.0%	5.0%	5.0%	5.0%	5.0%

4.10 Summary

This section of the report has provided a review of the City's wastewater revenue requirement analysis. The revenue requirement developed a financial plan to support the City's operating and capital infrastructure requirements for the wastewater utility. The next section will discuss the cost of service analysis, or the proportional distribution of costs, to the various customer's served by the City.

5 Development of the Cost of Service

In the previous section, the revenue requirement analysis focused on the total sources and application of funds required to adequately fund the City's wastewater utility operating and capital needs. This section of the report will discuss the development of the cost of service analysis. A cost of service analysis is concerned with the proportional distribution of the total revenue requirement between the various customer classes of service (e.g., residential, commercial). The previously developed revenue requirement was allocated and distributed in the cost of service analysis for this study.

In recent years, increasing emphasis has been placed on cost of service studies by government agencies, customers, utility regulatory commissions, and other parties. This interest has been generated in part by continued inflationary trends, increased operating and capital expenditures, and concerns of equity in rates among customers. Following the generally-accepted guidelines and principles of a cost of service analysis will inherently lead to rates which are equitable, cost-based, and not viewed as arbitrary or capricious in nature.

5.1 Objectives of a Cost of Service Study

There are two primary objectives in conducting a wastewater cost of service study:

- ✓ Distribute the revenue requirement among the customer classes of service
- ✓ Derive average unit costs for subsequent rate designs

The objectives of the wastewater cost of service analysis are different from determining revenue requirement. As noted in the previous section, a revenue requirement analysis determines the utility's overall financial needs, while the cost of service study determines the fair and equitable manner to collect the revenue requirement.

The cost of service analysis results in unit costs which can be used to design wastewater rates are designed which reflect the costs incurred by the customers. For example, a wastewater utility incurs costs related to flow, strength, and customer-cost components. Each of these types of costs may be collected in a slightly different manner as to allow for the development of rates that collect costs in the same manner as they are incurred.

5.2 Determining the Customer Class of Service

The first step in a cost of service study is to determine the customer classes of service. The goal of determining customer classes is to group customers with similar usage characteristics together. The City has two types of customers, residential and commercial. Within those main types of customers there are sub-groups that have slightly different rates. these groups and sub-groups are:

Residential

- Residential
- Residential – Low use
- Residential – Vacation

- Residential – Fernan

Commercial

- Commercial Low strength (includes multifamily >2 units)
- Commercial medium strength
- Commercial high strength
- Commercial - Fernan

The differences between the four residential customer rates are a function of the assumed volume. While the regular residential rate consists of the typical household including duplexes, the low use rate is for customer who use no more than 2,500 gallons per winter month which is roughly half of the regular residential customers estimated usage, while the vacation rate assumes no usage.

Commercial user rates are different based on the level of wastewater strength. Commercial low is assumed to be like residential wastewater strength. Commercial medium has higher wastewater strength than residential and commercial high has higher strength wastewater than medium.

Both residential and commercial customer types have rates for customers who reside in City of Fernan Lake Village (Fernan). Rates for Fernan customers is a result of an agreement between Fernan and The City adopted in 1977. At this time, the agreement on the approach to establishing rates has been reviewed by the City and it was determined that the rate for the Fernan residential customers would be transitioned to the proposed City residential rate.

For cost of service purposes the customer classes of service will be the main customer groups of residential and commercial. However, the unit costs developed as part of the study were used to establish the proposed rates for residential low use customers, which are defined as those customers using less than 2,500 gallons per month.

5.3 General Cost of Service Procedures

A cost of service study utilizes a three-step approach to review costs. These were previously discussed in our generic discussion in Section 2, and take the form of functionalization, allocation, and distribution. Provided below is a detailed discussion of the wastewater cost of service study conducted for the City, and the specific steps taken within the analysis.

5.3.1 Functionalization of Costs

The first analytical step in the cost of service process is called functionalization. Functionalization is the arrangement of expenses and asset (infrastructure) data by major operating functions within each utility. For example, a wastewater utility generally incurs costs for pumping, treatment, collection, etc. Within this study, the functionalization of the cost data was largely accomplished through the City's system of accounts and asset data.

5.3.2 Allocation of Costs

The second analytical task performed in a cost of service analysis is the allocation process. Allocation determines why the expenses were incurred or what type of need is being met. The City's plant accounts, and revenue requirement were reviewed and allocated using the following cost classifiers:

- ✓ **Volume Related Costs:** Volume related costs are those costs which tend to vary with the total quantity of wastewater collected and treated. A majority of collection system costs and a portion of treatment costs are included in this component. An example of a volume-related cost is electricity used for pumping or treating wastewater.
- ✓ **Strength Related Costs:** Strength related costs are those costs associated with the additional handling and treatment of high "strength" wastewater. Strength of wastewater is typically measured in biochemical oxygen demand (BOD), total suspended solids (SS), Ammonia (A), and phosphorus (P). Increased strength levels generally equate to increased treatment costs. Pre-treatment is generally required if the discharge is known to regularly exceed the typical waste strength.
- ✓ **Customer Related Costs:** Customer related costs vary with the addition or deletion of a customer. Customer related costs typically include the costs of billing, collecting, and accounting. Customer related costs may also be further categorized as actual or weighted.
- ✓ **Direct Assignments:** Certain costs associated with operating the utility may be directly traced to a specific customer or class of service. These costs are then "directly assigned" to that specific class of service.

5.3.3 Development of Distribution Factors

Once the allocation process is complete, the allocated costs are distributed to each customer class of service. For the City's study, allocated costs were distributed to the various customer groups using the following distribution factors.

- ✓ **Volume Distribution Factor:** Volume related costs are generally distributed on the basis of contribution to wastewater flows. In order to develop this distribution factor, some knowledge of the contribution to flows must be determined. Wastewater flows were estimated based on the winter water usage, from metered water sales, plus assumed I&I for each class of service for the projected test period.
- ✓ **Strength Distribution Factor:** Strength related costs are allocated between biochemical oxygen demand (BOD), suspended solids (SS), ammonia (A), and phosphorus (P). These types of costs are allocated to the various classes of service based upon the relative estimated strengths that each class of service contributed to the overall flow at the plant. The City's strength characteristics by class of service

Terminology of a Wastewater Cost of Service Analysis

FUNCTIONALIZATION – The arrangement of the cost data by functional category (e.g., treatment, collection etc.).

ALLOCATION – The assignment of functionalized costs to cost components (e.g., volume, strength, and customer related).

DISTRIBUTION – Distributing the allocated costs to each class of service based upon each class's proportional contribution to that specific cost component.

VOLUME COSTS – Costs that are allocated as volume related vary with the total flow of wastewater (e.g., chemical use at a treatment plant).

STRENGTH COSTS – Costs allocated as strength related refer to the wastewater treatment function. Different types of customers may have high wastewater strength characteristics and high strength wastewater costs more to treat. Facilities are often designed and sized around meeting these costs.

CUSTOMER COSTS – Costs allocated as customer related vary with the number of customers on the system (e.g., billing costs).

DIRECT ASSIGNMENT – Costs that can be clearly identified as belonging to a specific customer group or group of customers.

CUSTOMER CLASSES OF SERVICE – The grouping of customers into similar groups based upon usage characteristics and/or facility requirements.

were estimated within this study based on estimated industry standard values and the strength of wastewater received at the treatment plant.

- ✓ **Customer Distribution Factor:** Customer costs within the cost of service study are distributed to the various customer classes of service based on their respective customer counts. The number of customers, by customer class of service, was developed within the revenue requirement study. Two types of customer distribution factors were developed, actual and customer service and accounting. Actual customer costs do not vary by the volume or strength characteristics of the class of service and are based on the actual number of customers for each class of service. Customer service and accounting was developed based on the number of living units associated with each account. For this study, the customer service and accounting were not used in distributing costs to the customer classes of service.

Given the development of the distribution factors, the final step in the cost of service study is to distribute the allocated costs to the identified customer classes of service.

5.4 Functionalization and Allocation of Plant in Service

In performing the functionalization of plant in service (infrastructure), HDR utilized the City's historical plant records. Once the plant assets were functionalized, the analysis shifted to the allocation of the asset. The allocation process included reviewing each group of assets and determining which cost component the assets were related to. For example, the City's assets were allocated to the following cost components: volume related, strength related, customer related, revenue related, or directly assigned to a specific customer class or classes of service. Provided below is a brief discussion of the classification process used.

After a detailed review of the City's asset records, the functionalized plant (infrastructure) was allocated based on generally accepted cost allocation methods and an understanding of the City's operations and facility requirements. Lift stations are sized to meet total wastewater flows and therefore are considered 100% volume based. The collection plant, or sewer mains, are sized to meet total flows. However, there is also a customer component considered for collection mains. This assumes that the investment in collection lines is a function of both flow of wastewater and the number of customers served. Therefore, collection mains were allocated as 90% volume and 10% actual customer related. In reviewing the design for the treatment plant, it was allocated as 30% to volume-related, 2% biochemical oxygen demand (BOD)-related, 21% suspended solids (SS)-related, 18% ammonia (A)-related, and 29% phosphorus (P)-related. The compost was allocated 12% volume related, 4% biochemical oxygen demand (BOD) related, 61% suspended solids (SS) related, 4% Ammonia (A) related, and 19% phosphorus (P) related. A more detailed exhibit of the City's functionalization and classification of wastewater plant investment can be found in the Technical Appendix. Provided in Table 5-1 is a summary of the allocation of the wastewater plant in service

Table 5–1
Summary of the Allocation of Wastewater Plant in Service

Category	Volume Related	BOD Strength Related	SS Strength Related	A Strength Related	P Strength Related	Customer Related
Treatment	**30%**	**2%**	**21%**	**18%**	**29%**	**0%**
Compost	**12%**	**4%**	**61%**	**4%**	**19%**	**0%**
Lift Stations	**100%**	**0%**	**0%**	**0%**	**0%**	**0%**
Sewer Lines	**90%**	**0%**	**0%**	**0%**	**0%**	**10%**

5.5 Functionalization and Allocation of Operating Expenses

Operating expenses are generally functionalized and allocated in a manner like the corresponding plant account. For example, maintenance of collection lines is typically allocated in the same manner (allocation percentages) as the plant account for collection lines. This approach to allocation of operating expenses was used for this analysis.

For the City's study, the revenue requirement for FY 2023 were functionalized, allocated, and distributed. As noted earlier, the City utilized a cash basis revenue requirement, which was comprised of operation and maintenance expenses, debt service, and capital additions funded from rates. A more detailed review of the Allocation of revenue requirement can be found in the Technical Appendix, Exhibit 10.

5.6 Major Assumptions of the Cost of Service Study

A number of key assumptions were used within the City's wastewater cost of service study. Below is a brief discussion of the major assumptions used.

- ✓ The test period used for the cost of service analysis was FY 2023. The revenue and expense data was previously developed within the revenue requirement analysis.
- ✓ A cash basis approach was utilized which conforms to generally accepted wastewater cost of service approaches and methodologies. Under the cash basis approach, the revenue requirements previously developed are allocated to each customer class of service.
- ✓ The allocation of plant in service was developed based on generally accepted cost allocation techniques. Furthermore, the allocation process was developed using the City specific data, and knowledge of the City's operations.
- ✓ Customer volumes used within this study for purposes of developing the distribution factors were estimated for each class of service based on historical winter water usage information provided by the City.

5.7 Summary Results of the Cost of Service Analysis

In summary form, the cost of service analysis began by functionalizing the City's infrastructure records and operating expenses. The functionalized infrastructure and operating expenses were

then allocated to their various cost components based on industry standard methodologies. The individual allocation totals were then distributed to the various customer classes of service based on the corresponding distribution factor. The distributed expenses for each customer group were then aggregated to determine each customer group's overall revenue responsibility. A summary of the detailed cost responsibility developed for each class of service is shown below in Table 5-2.

Table 5–2
Summary of the Cost of Service Analysis ($000s)

Customer Class of Service	Present Rate Revenues	Allocated Costs	$ Difference	% Difference
Residential	$8,719	$8,942	($223)	5.5%
Commercial	5,500	5,605	(105)	4.2%
Total	$14,219	$14,547	($328)	5.0%

The allocation of costs reflects the benefits received from infrastructure in place to provide service and the resulting operating expenses for each customer class of service. The difference between the rate revenues and distributed costs for each class of service represents the variance from current rate levels to reflect this cost of service analysis. It is important to remember that a cost of service analysis is not an exact calculation. Rather it reflects the current relationships between current customer rate revenues and current costs. Given this, if a customer class is within +/- 5% of the system total, they are generally considered to be reasonable. For this study, both customer classes only vary slightly from the overall system revenue adjustment of 5%. Cost of service relationships can change over time given changes in the way costs may be incurred, along with changes in customer and system characteristics.

The revenue requirement determined the overall revenue adjustment necessary to fund operating and capital expenses. The cost of service results provide an indication of how the overall revenue adjustment should be collected. In this case, given the results of the cost of service analysis, no cost of service adjustments are proposed given a reasonable difference between the allocations of the customer classes of service. In this way, the City will continue its practice of charging cost-based rates.

In reviewing the above results, it should also be understood that a cost of service analysis is based on one year's data and customer information, and customer characteristics may change over time. Therefore, it is appropriate to determine whether these findings are consistent over time, and when more firmly ascertained, make further cost of service adjustments at that time.

The other result of a cost of service analysis is the development of unit costs. Unit costs are based on the allocation of costs between the various cost of service characteristics divided by the appropriate volume or pounds by component. These unit costs can be helpful when developing equitable rate designs for wastewater customers. Provided in Table 5-3 is a summary of the unit costs.

Table 5–3
Summary of the Unit Costs

Flow	Biochemical Oxygen Demand (BOD)	Suspended Solids (SS)	Ammonia (A)	Phosphorus (P)
$3.93 / kgal	**$0.0493 / lb**	**$0.5254 / lb**	**$3.1200 / lb**	**$27.0940 / lb**

These unit costs were developed based on the allocation of costs for each component, flow, BOD, SS, A, and P, divided by the estimated total system flow and total pounds based on the annual flow and wastewater strength. One of the key uses of this data is to determine the rate differential between the commercial customer classes of low, medium, or high strength

5.8 Consultant's Conclusions and Recommendations

Unlike a revenue requirement which is a review of a period of time, a cost of service is an analysis of a single point in time. A cost of service analysis should be viewed with perspective the time of the analysis and what will happen in the future. HDR recommends reviewing the results of the cost of service in context of past cost of service studies, and known changes to system or customer characteristics. As noted, generally if a customer class results are within 5% of the overall increase, the results are reasonable, and no specific cost of service adjustments are necessary. However, if specific changes are known, or projected, cost of service adjustments could be made to reflect these changes. The cost of service results for each customer class is less than 5% greater or less than the overall rate adjustment and as a result, no interclass adjustments are proposed. These results are consistent with the 2018 study where both residential and commercial results were within 5% of the overall rate adjustment.

5.9 Summary

This section of the report has provided a summary of the cost of service analysis developed for the City of Coeur d'Alene wastewater utility. This analysis was prepared using generally accepted cost of service techniques. The next section of the report will review the present and proposed wastewater rates for the City.

6 Development of the Rate Designs

The final step of a comprehensive rate study is the design of rates to collect the desired levels of revenues, based on the results of the revenue requirement and cost of service analyses. In reviewing wastewater rate designs, consideration is given to the level of the rates and the structure of the rates. The level of the rates refers to the amount of annual revenues received through rates. The structure of the rate is how the customer is charged. The combination of the level of rates, and structure of rates, provides a price signal to the customer on how their use impacts the costs of the system.

6.1 Rate Design Criteria and Considerations

Prudent rate administration dictates that several criteria must be considered when setting utility rates. Some of these rate design criteria are listed below:

- ✓ Rates which are easy to understand from the customer's perspective
- ✓ Rates which are easy for the utility to administer
- ✓ Consideration of the customer's ability to pay
- ✓ Continuity, over time, of the rate making philosophy
- ✓ Policy considerations (encourage efficient use, economic development, etc.)
- ✓ Provide revenue stability from month to month and year to year
- ✓ Promote efficient allocation of the resource
- ✓ Equitable and non-discriminatory (cost-based)

Many contemporary rate economists and regulatory agencies feel the last consideration, cost-based rates, should be of paramount importance and provide the primary guidance to utilities on rate structure and policy. It is important that the City provide its customers with a proper price signal as to what their usage is costing. This goal may be approached through rate level and structure. When developing the proposed rate designs, all the above listed criteria were taken into consideration. However, it should be noted that it is difficult, if not impossible, to design a rate that meets all the goals and objectives listed above. For example, it may be difficult to design a rate that takes into consideration the customer's ability to pay, and one which is cost-based. In designing rates, there are always trade-offs between a utility's rate design goals and objectives.

6.2 Review of the Overall Rate Adjustment

As indicated in the revenue requirement and the cost of service analyses, the priority for the wastewater utility was to transition the overall level of the wastewater rates to meet financial needs. A rate transition plan was developed to prudently fund the utility's operating and capital infrastructure needs. Provided in Table 6-1 is a summary of the proposed revenue adjustments for the next five-year period.

Table 6–1
Proposed Rate Transition Plan – Overall System Adjustments

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Proposed Rate Adjustment	**5.0%**	**5.0%**	**5.0%**	**5.0%**	**5.0%**

While the revenue requirement analysis resulted in the proposed revenue transition plan, it does not take into consideration the allocation of costs between the various customer classes of service. In developing the final rates, the cost of service results need to be taken into consideration. For this study, the results of the cost of service analysis showed minimal cost of service differences between the customer classes of service. Therefore, the rate transition plan will be applied to the proposed rates.

6.3 Present and Proposed Rates

In developing the proposed rate designs, the City's existing rate structures were reviewed. The existing rate structure is contemporary in nature and has a separate rate for residential customers and commercial customers. The commercial customer rate structure is further defined by strength category (low, medium, high). The monthly service charge rate was increased 5% for all customers including all residential customers and all commercial customers.

In addition to the monthly service charge residential customers are charge a monthly usage charge. For this study the usage charge was adjusted to better reflect the proportionate nature of the charge. Currently the low use customer pay the a monthly use charge that is only 18% of the regular residential usage charge. To qualify for the low usage charge a customer must use less than 2,500 gallons each month during the winter months. The low use rate was adjusted to equal 53% of the regular residential usage rate to better reflect the actual difference in wastewater for low usage customers. Since the low usage charge increased at a much higher rate than the overall adjustment, that means that the regular residential usage charge could increase by a lesser amount to meet the overall 5% increase in revenue.

Another change in rates proposed for this study was to phase out the Fernan rate over the five-year rate setting period. Phasing out the Fernan rate was done by raising the usage rate 5% plus an additional $1.72 per month annually. By the end of the five-year period the Fernan residential rate will be the same as the Coeur D'Alene residential rate. The same change was made to the Fernan commercial rate, but the volume rate was increased 5% plus $0.17 per thousand gallons annually to match the Coeur D'Alene commercial low rate by 2027.

Rates were designed to collect 5% increase in revenue by residential as a whole and commercial as a whole. Provided in Table 6-2 is a summary of the present and proposed rates.

Table 6–2
Present and Proposed Wastewater Rates

Customer Class and Rate	Billing Fee Code	Present Rates	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Monthly Service Charge	All Customers	$14.99	$15.74	$16.53	$17.35	$18.22	$19.13
Residential Rates							
Monthly Usage Charge (per dwelling unit)							
Residential	SERS	$33.82	$33.18	$34.83	$36.58	$38.40	$40.32
Residential(vacation)	SERV	0.00	0.00	0.00	0.00	0.00	0.00
Residential-Low	SERSL	6.24	17.72	18.61	19.54	20.52	21.54
Fernan-Residential	SERF	24.17	27.09	30.16	33.39	36.77	40.32
Duplex-One Meter (x2)	SERMF	33.82	33.18	34.83	36.58	38.40	40.32
Residential + ADU-One Meter (x2)	SERADU		33.18	34.83	36.58	38.40	40.32
Commercial Rates							
Monthly Usage Charges per 1,000 gallons							
Commercial-Low*	CWCL	$5.61	$5.89	$6.19	$6.49	$6.82	$7.16
Commercial-Medium	CWCM	6.44	6.76	7.10	7.46	7.83	8.22
Commercial-High	CWCH	7.24	7.60	7.98	8.38	8.80	9.24
Fernan-Commercial	SENRO6	4.86	5.28	5.71	6.17	6.66	7.16
Fernan-Commercial	SENRF	4.86	5.28	5.71	6.17	6.66	7.16

*Includes multifamily residential customers greater than 2 units.

As can be seen in Table 6-2 the present residential rates are a flat monthly usage charge. In contrast to this, commercial rates have a volume-based usage charge. These volume-based charges are billed on the customer's water consumption and billed per thousand Gallons. The proposed rate adjustments were applied equally to both the fixed monthly customer charge, as well as the volume charge, when applicable, based on the adjustments in Table 6-1.

6.4 Summary of the Rate Design Analysis

This completes the rate design analysis for the City's wastewater rate study. It is recommended that rates be adjusted as shown in table 6-1. The adoption of the proposed rates in Table 6-2 are designed to meet the City's projected revenue requirement, which was developed and intended to prudently fund the City's wastewater operating and capital infrastructure improvement needs.

7 Development of the Capitalization Fee

The final aspect of the City's comprehensive rate and fee study was the review and update of the City's wastewater Capitalization Fee (CAP Fee). The objective of this review is to calculate a cost-based and legally defensible CAP Fee for new customers connecting to the City's wastewater system. CAP Fees provide the means for new customers to "buy in" to the existing system to recover the costs of operating, maintaining, replacing, and depreciating the existing sewer system at the time the new customer buys in.

To maintain compliance with the court mandated method for calculating CAP fees, the method described in the 1991 Loomis v. City of Hailey was used to calculate the level of the CAP Fee that can be legally charged.

7.1 Defining Capitalization Fees

The first step in establishing cost-based CAP Fee is to gain a better understanding of the definition of a CAP Fee. For purposes of this review, a CAP Fee or "system development charge" is used as interchangeable terms and hold the same meaning and intent. A system development charge is defined as follows:

> *"These fees are one-time charges to customer when they connect to the system or by developers as part of the permitting or planning process.[2]"*

System development charges, or CAP Fees, are a financial contribution to reimburse existing customers for the available system capacity in the existing system.

The main objective of a CAP Fee is to assess the benefiting (connecting) party their proportionate share of the cost of infrastructure required to provide them service (i.e., accommodate capacity needs) at the time the party connects to the system. A CAP Fee is an assessment of service to the party connecting to the system, revenues are not used as a means of generating revenue, and the funds are used solely in support of the sewer system which preclude the fee from being a tax.

CAP Fees are permissible under Idaho Statute title 50, chapter 10, section 1030(e)&(f).

> *"(e) To issue its revenue bonds hereunder to finance, in whole or in part, the cost of the acquisition, construction, reconstruction, improvement, betterment or extension of any works, or to finance, in whole or in part, the cost of the rehabilitation of existing electrical generating facilities;*
>
> *(f) To prescribe and collect rates, fees, tolls or charges, including the levy or assessment of such rates, fees, tolls or charges against governmental units, departments or agencies, including the state of Idaho and its subdivisions, for the services, facilities and commodities furnished by such works, or by such rehabilitated existing electrical generating facilities, and to provide methods of collections and penalties, including denial of service for nonpayment of such rates, fees, tolls or charges; "*

[2] Financing and Charges for Wastewater Systems, Manual of Practice No. 27. Water Environmental Federation, Fourth Edition, Page 200.

CAP Fees are generally imposed as a condition of service. As noted, the objective of a CAP Fee is not to generate funds for a utility, but to assure that all customers seeking to connect to the utility's system bear an equitable share of the cost of capacity that is invested in the existing system. The development of the CAP Fee is based on the estimated capacity a new customer will place on the system on average. While some customers may be above or below the average, the purpose of the CAP Fee is not to exactly reflect the capacity requirements of each customer, but place customers in like groups similar to the rate setting process.

By reviewing and updating its CAP Fee, the City continues an important step in providing adequate infrastructure to new customers in a cost-based and equitable manner. The City should set CAP Fees which are cost-based while balancing the needs of the City and development community.

7.2 Disclaimer

HDR has used generally accepted engineering and ratemaking principles in calculating the City's CAP Fee. This should not be construed as a legal opinion with respect to Idaho State law. HDR recommends that the City have its legal counsel review the development of the CAP Fee to verify compliance with Idaho State law prior to adoption by the City Council.

7.3 Present CAP Fee

The City's present wastewater CAP Fee is shown below in Table 7-1.

Table 7–1
Present Wastewater Capitalization Fee

Customer	Capitalization Fee
Capitalization Fee per population equivalent (PE)	$1,383
Single Family Dwelling (Assumes 2.39 PE's)	$3,305

As shown in Table 7-1, the City's wastewater CAP Fee is based on population equivalencies. The last study used an assumed 2.39 persons per household. For the updated study the figure was revised to reflect the 2020 US Census Bureau data which indicates the persons per household in the City is 2.27.

7.4 Key Assumption of the CAP Fee Development

In developing the wastewater capitalization fee for the City's wastewater system, a number of key assumptions were utilized. These are as follows:

- ✓ The City's asset records were used to determine the existing plant asset value and accumulated depreciation.
- ✓ The Engineering New Record, Construction Cost Index (CCI) was used as a means of escalating the original cost to the estimated system replacement cost.
- ✓ The City's debt schedules were used to establish the outstanding loan principal for establishing the debt service credit.

7.5 Development of the Proposed CAP Fee

The CAP fee is based on the capacity of the existing system. This component results in new customers reimbursing existing customers for the new customer's equitable share of the available capacity within the existing system. The process of calculating the capitalization fees is based upon a four-step process. In summary form, these steps are as follows:

- ✓ System planning criteria
- ✓ Valuation of the fixed assets
- ✓ Estimating the replacement cost of the existing system
- ✓ Establishing credits against the replacement such as unfunded depreciation and debt service

7.5.1 System Planning Criteria

System planning criteria is used to establish the capacity needs of a population equivalent unit (PE) for the utility. The planning criteria were estimated based on information provided in the current wastewater rate study. Table 7-2 provides a summary of the planning criteria used to establish the City's wastewater capitalization fee.

Table 7–2
Summary of the Wastewater System Planning Criteria

Planning Criteria Description		Unit
Total Residential Plant Volume	2,323,079	gallons
Total Number of Residential Customers	15,868	customers
Average Household Size household	2.27	persons per
Average Day Household Flow	64.49	gallons/PE
System Capacity	5,000,000	gallon/day
TOTAL PE's	**77,527**	**PE's**

The residential average day household flow of 64.49 gallons per PE was calculated based on 2,323,079 gallons residential water volume, as calculated in the wastewater rates study and based on historical billing records, divided by 15,868 residential customers divided by 2.27 persons per household (2,323,079/15,686/2.27) =64.49 gallons/PE. The gallon per PE has decreased since the last study which was 65.49 gallons per day. This trend is happening around the country where households are using less water due to a few factors including more water efficient water appliances and conservation efforts. The existing system capacity is 5 million gallons per day. 5 million gallons per day divided by 64.49 equals the existing system capacity of 77,527.

7.6 Calculated CAP Fee

Based on the sum of the existing infrastructure costs, the CAP Fee can be calculated. Charging an amount greater than the allowable CAP Fee would amount to an impermissible tax and violate Idaho constitution. The CAP Fee method is a backward looking fee in the sense that it is based on replacement cost of existing infrastructure only, and divided by existing capacity in equivalent units. Table 7-3 provides the original cost and the replacement cost of allowable assets.

Table 7–3
System Replacement Cost by Component

Eligible Infrastructure	Original Cost	Replacement Cost
Treatment	$131,376,021	$255,201,349
Collection	22,611,847	58,806,319
Lift Stations	2,061,863	5,591,739
Compost	3,286,575	6,965,682
General Plant	0	0
Total	$198,308,530	$326,565,089

Replacement cost was determined by taking the original cost of the asset and bringing it up to today's cost (value) using the Engineering Record Construction Cost Index (ENR CCI). Once the system replacement costs have been established it is then reduced to account for unfunded depreciation and outstanding principal balance on debt. The net replacement cost is then divided by the number of PEs the system can serve to arrive at the new CAP Fee. Provided in Table 7-4 is a summary of the wastewater CAP Fee calculated under the Loomis methodology.

Table 7–4
Loomis Method Calculated Net Allowable Wastewater Capitalization Fee ($/PE)

Replacement Cost	$326,565,089
Unfunded Depreciation	(66,303,299)
Outstanding Principal Balance	(32,133,077)
Net Replacement Costs	$228,128,713
Capacity Per Day (Gallon/Day)	5,000,000
Gallons per PE per Day	64.36
Capacity in PEs	77,693
Calculated CAP Fee	**$2,936**

Table 7-4 shows that using the legally approved method, the allowable CAP fee is $2,936, meaning the CAP fee calculated using the City's historical method cannot exceed that amount. Given this, Table 7-5 provides the breakdown of the CAP Fee by system component.

Table 7–5
Calculated Wastewater Capitalization Fee ($/PE) by System Component

Component	2022 Replacement Cost	Unfunded Deprecation	Total CF by Component
Treatment	3,285	(726)	2,559
Collection Mains	757	(85)	672
Lift Stations	72	(19)	53
Compost	90	(23)	66
General Plant	0	0	0
Debt Service Credit	(414)	0	(414)
TOTALS Per PE	$3,790	($853)	$2,936

As shown in Table 7-5, the replacement cost is reduced by the unfunded depreciation, and then the outstanding debt is subtracted from the calculated CAP Fee. This results in a calculated net allowable fee of $2,936 per population equivalent (PE). A detail of the net allowable CAP Fee for the City is shown in the Appendices.

The City charges a CAP fee to the various types of customers connecting to the system based on the equivalent number of PE's. Provided in Table 7-6 is a summary of the proposed CAP fee for the City.

Table 7-6
Proposed Wastewater CAP Fee

Customer Type		PE Units		Calculated CF
Residential				
	Single Family Dwelling	2.27	per unit	$6,665
	Multiple Family Dwelling (2 units)	2.27	per unit	6,665
	Accessory Dwelling Unit (ADU)	2.20	per unit	6,460
Commercial-Low				
	Bar or tavern	0.20	per seat	$587
	Coffee (or other beverage) Kiosk	0.77	per Kiosk	2,261
	Factories	0.10	per 100 sq. ft.	294
	Hospital	2.50	per bed	7,341
	Institution (other than hospital)	1.25	per bed	3,670
	Mobile Home	2.27	per unit	6,665
	Mobile or Temporary Vendors	0.70	per vendor or space	2,055
	Multiple Family Dwelling (>2 units)	2.20	per unit	6,460
	Office Space	0.10	per 100 sq. ft.	294
	Retail Space	0.05	per 100 sq. ft.	147
	Recreational Vehicle Park	2.08	per RV site	6,107
	School (without meal preparation)	0.08	per student/staff	235
	Warehouse	0.04	per 100 sq. ft.	117
Commercial-Medium				
	Hotel or motel (without kitchen facilities in room)	1.30	per unit	$3,817
Commercial-High*				
	Bakeries	0.20	per seat	$814
	Bowling Alley	1.00	per lane	4,070
	Funeral homes	0.05	per 100 sq. ft.	203
	Grocery markets with garbage disposals	0.04	per 100 sq. ft.	163
	Hotel or motel (with kitchen facilities in room)	1.60	per unit	6,511
	Laundry, commercial	1.90	per washing machine	7,732
	Brewery	2.30	per Barrels of production capacity	9,360
	Restaurants	0.20	per seat	814
	School (with meal preparation)	0.13	per student/staff	528
	Theaters (indoor and outdoor)	0.03	per seat	122

[1] "Single Family Dwelling" category applied to Vacation Rentals or any dwelling unit defined in City Code.

[2] Institution, (other than hospital) category will be used to calculate PE's for Assisted care/group home with more than 8 occupants and 2 caregivers.

[3] "Retail" category will be used to calculate PE's for customers not listed in the above Commercial Low Category.

[4] Commercial high strength customer fees include a high strength surcharge of $1,133.35 per PE.

[5] Brewery category will be used to calculate PE's based on the industry strength standards and maximum barrel production provide by applicants equipment supplier.

[6] School (with meal preparation) category will be used to calculate child care facilities with more than 8 children and 2 employees.

Table 7-6 presents the capitalization fee for residential and commercial customers. These fees are determined by multiplying the net allowable CAP Fee of $2,633/PE times the population's equivalents per customer type. For single family dwelling this would be $3,305 ($2,633 X 2.27 PEs = $5,977).

In some instances, a new customer looking to connect to the system will not "fit" into any of the categories described in Table 7-6. In those instances, the CAP Fee can be calculated based on the per unit costs based on the CAP Fee analysis. Provided in Table 7-7 is a summary of the unit costs as developed during the CAP fee analysis.

Table 7-7
Summary of the CAP Fee Unit Costs

	Volume/Flow	Biochemical Oxygen Demand (BOD)	Suspended Solids (SS)	Ammonia Nitrogen (N)	Phosphorus (P)
Unit Cost per PE	$9.27	$295.26	$4,125.35	$10,346.81	$118,405.06
	Gpd	Lbs/day	Lbs/day	Lbs/day	Lbs/day

These unit costs provide the typical cost per PE for calculating the CAP Fee for new customers connecting to the City's system. These unit costs can also be used to determine adjustments to CAP Fees when wastewater flow has decreased, but the strength loadings have stayed the same or increased. Provided in Table 7-8 is a summary of the high strength surcharge for customer in the high strength category. This charge is added to the base per PE charge to reflect the additional impacts these high strength customers place on the treatment process and capacity required to serve them.

Table 7-8
Overview of the High Strength Surcharge

	Total	Biochemical Oxygen Demand (BOD)	Suspended Solids (SS)	Ammonia Nitrogen (N)	Phosphorus (P)
High Strength Surcharge per PE	$1,133.35	$23.84	$333.04	$139.22	$637.26
		Lbs/day	Lbs/day	Lbs/day	Lbs/day

7.7 Consultants Recommendations

Based on our review and analysis of the City's wastewater CAP Fee, HDR recommends the following:

- ✓ The City should revise and update its wastewater CAP Fee for new connections to the wastewater system as set forth in this report.

- ✓ The City should update the actual calculations for the wastewater CAP Fee based on the methodology approved by the resolution or ordinance setting forth the methodology for CAP Fees at such time when significant new infrastructure is added and in use or at least every five years.
- ✓ For those customers that do not "fit" into the schedule, the City will review and determine the appropriate PE charge for the customer. The CAP Fee will be based on the customer's specific capacity demands and charged appropriately.
- ✓ Over time customer usage characteristics may change. In these instances, the City will work with the customer to determine any appropriate adjustments to the CAP Fee. This may result in an increase, or decrease, to the CAP Fee while considering the full capacity the customer may place on the system.

7.8 Capitalization Fee Implementation Process

As noted, many times customers do not fit within the defined CAP Fee categories. In those cases, it is important to consider the customer's capacity potential based on possible wastewater flows and strength levels. The final CAP Fee should reflect the ultimate capacity requirements of the customer and reflect the flow and strength unit costs calculated previously. Provided below are a few examples the City has dealt with and a recommendation of how the CAP Fee process can be used going forward.

As an example, a restaurant CAP Fee is based on a per seat basis, while the restaurant may not fill each of those seats, the customer could utilize the full capacity at any given time. This is the basis for the development of the CAP Fee, the capacity requirements that a customer can place on the system. However, the City does have in place a method for customers to discuss and review the CAP Fee. In those cases, the customer must provide sufficient data that their flow and strength do not reflect the CAP Fee charged. The City must also maintain the ability to review customer change in use and charge an incremental CAP Fee to reflect the actual capacity the customer is using.

Another example may be accessory dwelling units defined in City Code, or buildings that may not be sewered but result in additional staff or public utilizing the premises. In those cases, if the additional staff or public results in increased capacity use, an incremental CAP Fee should be charged to reflect the capacity used by the customer. For additional living units on residential properties, it would be reasonable to charge these additional residential dwelling units the multi-family >2 PE charge.

Many times, customers, both residential and commercial, have previously paid CAP Fees for their property and later make improvements, additions, or changes to the facilities. In those cases, as the customer works through the City's permitting process, the City should review the changes and if the changes result in additional capacity the City should charge the appropriate incremental CAP Fee. It is important to remember that only the incremental cap fee be charged as the customer has already paid a CAP Fee for the original facility.

In all of these cases, City staff should work with the customers and its legal department to charge an equitable CAP Fee.

7.9 Summary of the Capitalization Fee

The CAP Fees developed and presented in this review are based on financial and budgeting data, engineering information, and the value of the existing assets, future capital improvements, and "generally accepted" ratemaking principles. The fees in this report indicate the City should review their current fee structure and base the fee on as presented in this report. Establishment of a CAP Fee will create equitable and cost-based fees for new customers connecting to the City's wastewater system.

Appendix

City of Coeur D'Alene
Rate and Capitalization Fee Study
Revenue Requirement Summary
$7m Borrowing w/5%

(Values $1,000s)	Budget	Budget	Projected								
	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Revenue											
Rate Revenue at Current Rates	$14,079	$14,219	$14,324	$14,430	$14,537	$14,645	$14,754	$14,864	$14,975	$15,087	$15,200
Miscellaneous Revenue	89	86	140	104	86	76	80	86	90	93	96
Total Revenue	$14,168	$14,304	$14,464	$14,534	$14,623	$14,721	$14,834	$14,949	$15,065	$15,180	$15,296
Expenditures											
Wastewater Personnel Costs	$3,034	$3,587	$3,694	$3,805	$3,919	$4,037	$4,158	$4,533	$4,669	$4,809	$4,953
Adminstration	1,188	1,172	1,211	1,251	1,293	1,336	1,380	1,426	1,474	1,523	1,575
Treatment	1,896	2,507	2,602	2,701	3,211	3,338	3,472	3,611	3,756	3,908	4,066
Collection	129	153	160	167	174	182	190	199	208	217	227
Sludge Management	136	146	151	156	162	168	174	181	187	194	201
Additional O&M	0	0	0	0	0	0	0	0	0	0	0
Total Expenditures	$6,383	$7,564	$7,818	$8,080	$8,759	$9,061	$9,374	$9,949	$10,294	$10,651	$11,022
Rate Funded Capital	$4,919	$4,600	$4,700	$4,850	$5,200	$5,650	$6,000	$6,350	$6,700	$6,950	$7,200
Debt Service	$4,195	$3,013	$3,013	$3,013	$3,013	$3,015	$3,476	$3,479	$3,470	$3,476	$3,475
Transfers	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Revenue Requirement	**$15,498**	**$15,177**	**$15,530**	**$15,943**	**$16,972**	**$17,726**	**$18,850**	**$19,778**	**$20,464**	**$21,077**	**$21,697**
Balance/Deficiency of Funds	($1,330)	($873)	($1,067)	($1,410)	($2,349)	($3,005)	($4,016)	($4,829)	($5,399)	($5,897)	($6,401)
Rate Adj. as a % of Rate Rev	9.4%	6.1%	7.4%	9.8%	16.2%	20.5%	27.2%	32.5%	36.1%	39.1%	42.1%
Proposed Rate Adjustment	**0.0%**	**5.0%**	**5.0%**	**5.0%**	**5.0%**	**5.0%**	**5.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**
Rate Revenue After Adjustment	$14,168	$14,632	$15,527	$16,380	$17,303	$18,288	$19,345	$20,188	$20,748	$21,322	$21,912
Debt Service Coverage Ratio											
Before Rate Adjustment	1.86	1.92	1.89	1.84	1.67	1.61	1.37	1.26	1.20	1.14	1.08
After Rate Adjustment	1.86	2.01	2.19	2.36	2.43	2.62	2.51	2.57	2.63	2.68	2.74
Average Monthly Residential Bill	$48.81	$51.25	$53.81	$56.50	$59.33	$62.30	$65.41	$66.72	$68.05	$69.41	$70.80
$ Change Per Billing Period		2.44	2.56	2.69	2.83	2.97	3.11	1.31	1.33	1.36	1.39
Cumulative $ Change per Billing Period		2.44	5.00	7.69	10.52	13.49	16.60	17.91	19.24	20.60	21.99
Reserve Fund Ending Balances											
Operating Fund Ending Fund Balance	**$13,263**	**$12,118**	**$7,028**	**$5,229**	**$3,256**	**$3,393**	**$3,888**	**$4,298**	**$4,582**	**$4,827**	**$5,042**
Operating Fund Target EFB	1,049	1,243	1,285	1,328	1,440	1,489	1,541	1,635	1,692	1,751	1,812
Capital Fund Ending Fund Balance	**$3,518**	**$140**	**$140**	**$140**	**$140**	**$140**	**$1,434**	**$4,680**	**$7,543**	**$8,462**	**$12,339**
Capital Fund Target EFB	8,777	8,777	8,777	8,777	8,777	8,777	8,777	8,777	8,777	8,777	8,777
CAP Fee Funded Ending Balance	**$6,063**	**$6,494**	**$4,028**	**$1,459**	**$0**	**$1,376**	**$2,876**	**$4,376**	**$2,356**	**$3,856**	**$5,356**

City of Coeur D'Alene
Rate and Capitalization Fee Study
Escalation Factors
Exhibit 1 - Escalation Factors

	Budget	*Budget*	*Projected*									
	FY 2022	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**FY 2031**	**FY 2032**	*Notes*
Revenues												
Residential	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
Residential Volume	1.0%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	
Commercial	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
Commercial Medium	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
Commercial High	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
Commercial Vol.	1.0%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	
Commercial Vol. Medium	1.0%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	
Commercial Vol. High	1.0%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	
Consumer Price Index	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	
Capacity Fee	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
Misc. Revenue	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
Consumption Growth	0.6%	0.6%	0.6%	0.7%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	
Flat	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Expenses												
Salaries and Wages	Budget	Budget	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	
Personnel Benefits	Budget	Budget	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	
Interfund Charges	Budget	Budget	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	
Office and Operating Supplies	Budget	Budget	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	
Professional Services	Budget	Budget	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	
Machinery and Equipment	Budget	Budget	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	
Operational Rentals and Leases	Budget	Budget	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	
Purchased Power	Budget	Budget	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	
Other Utilities	Budget	Budget	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	
Repairs and Maintenance	Budget	Budget	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	
Cost Share Reimbursements	Budget	Budget	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	
Miscellaneous	Budget	Budget	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	
Capital Costs	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	
One-time	Budget	Budget	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	
Flat	Budget	Budget	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Interest	0.5%	0.75%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
New Debt Service												
Revenue Bond												
Rate	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	
Term	20	20	20	20	20	20	20	20	20	20	20	
Low Interest Loans												
Rate	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	
Term	20	20	20	20	20	20	20	20	20	20	20	

City of Coeur D'Alene
Rate and Capitalization Fee Study
Revenue Requirement
Exhibit 2 - Sources & Application of Funds

	Budget	*Budget*	*Projected*									
	FY 2022	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**FY 2031**	**FY 2032**	*Notes*
Revenues												
Rate Revenues												
Residential	$7,881,999	$7,959,739	$8,038,257	$8,117,559	$8,197,655	$8,278,551	$8,360,257	$8,442,779	$8,526,127	$8,610,308	$8,695,332	Calculated on Customer Forecast Exhibit
Residential Low	721,491	728,705	735,992	743,352	750,786	758,294	765,877	773,535	781,271	789,084	796,974	Calculated on Customer Forecast Exhibit
Residential Fernan	30,376	30,679	30,986	31,296	31,609	31,925	32,244	32,567	32,892	33,221	33,554	Calculated on Customer Forecast Exhibit
Commercial Low	3,642,568	3,678,993	3,692,142	3,705,351	3,718,621	3,731,953	3,745,346	3,758,802	3,772,320	3,785,901	3,799,545	Calculated on Customer Forecast Exhibit
Commercial Medium	526,678	531,945	533,707	535,475	537,251	539,033	540,823	542,619	544,423	546,234	548,052	Calculated on Customer Forecast Exhibit
Commercial High	1,271,823	1,284,541	1,288,639	1,292,752	1,296,879	1,301,021	1,305,178	1,309,350	1,313,537	1,317,739	1,321,957	Calculated on Customer Forecast Exhibit
Commercial Fernan	4,002	4,042	4,060	4,077	4,095	4,112	4,130	4,148	4,166	4,184	4,202	Calculated on Customer Forecast Exhibit
Total Rate Revenues	**$14,078,937**	**$14,218,647**	**$14,323,783**	**$14,429,863**	**$14,536,895**	**$14,644,889**	**$14,753,854**	**$14,863,800**	**$14,974,736**	**$15,086,671**	**$15,199,615**	
Other Revenues												
Hookup fees	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	As Misc. Revenue
Huetter Interceptor Fees	19,000	19,000	19,190	19,382	19,576	19,771	19,969	20,169	20,371	20,574	20,780	As Misc. Revenue
Surplus Sales	0	0	0	0	0	0	0	0	0	0	0	As Misc. Revenue
Compost Sales	25,000	25,000	25,250	25,503	25,758	26,015	26,275	26,538	26,803	27,071	27,342	As Misc. Revenue
Misc. Revenue	0	0	0	0	0	0	0	0	0	0	0	As Misc. Revenue
Interest Earnings - Operating Fund	45,000	41,500	95,743	59,100	40,773	30,438	33,930	38,878	42,977	45,823	48,273	Calculated
Total Other Revenues	**$89,000**	**$85,500**	**$140,183**	**$103,984**	**$86,107**	**$76,224**	**$80,175**	**$85,585**	**$90,151**	**$93,469**	**$96,395**	
Total Revenues	**$14,167,937**	**$14,304,147**	**$14,463,965**	**$14,533,847**	**$14,623,002**	**$14,721,114**	**$14,834,029**	**$14,949,385**	**$15,064,886**	**$15,180,140**	**$15,296,010**	

	Budget	*Budget*	*Projected*									
	FY 2022	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**FY 2031**	**FY 2032**	*Notes*
Expenses												
Wastewater Personnel Costs												
Administrative	$668,854	$929,170	$957,045	$985,757	$1,015,329	$1,045,789	$1,077,163	$1,109,478	$1,142,762	$1,177,045	$1,212,356	As Salaries and Wages
Collection	790,284	842,809	868,093	894,136	920,960	948,589	977,047	1,256,358	1,294,049	1,332,870	1,372,856	As Salaries and Wages
Treatment	1,383,009	1,609,049	1,657,320	1,707,040	1,758,251	1,810,998	1,865,328	1,921,288	1,978,927	2,038,295	2,099,443	As Salaries and Wages
Sludge Management	192,282	205,596	211,764	218,117	224,660	231,400	238,342	245,492	252,857	260,443	268,256	As Salaries and Wages
Total Wastewater Personnel Costs	**$3,034,429**	**$3,586,624**	**$3,694,223**	**$3,805,049**	**$3,919,201**	**$4,036,777**	**$4,157,880**	**$4,532,617**	**$4,668,595**	**$4,808,653**	**$4,952,912**	
Adminstration												
Office Supplies	$25,000	$27,500	$28,325	$29,175	$30,050	$30,951	$31,880	$32,836	$33,822	$34,836	$35,881	As Office and Operating Supplies
Minor Equipment			0	0	0	0	0	0	0	0	0	As Office and Operating Supplies
Fuels/Lubes	500	500	530	562	596	631	669	709	752	797	845	As Machinery and Equipment
COVID-19			0	0	0	0	0	0	0	0	0	As Miscellaneous
Professional Services	205,000	200,000	210,000	220,500	231,525	243,101	255,256	268,019	281,420	295,491	310,266	As Professional Services
PLC Programming Support			0	0	0	0	0	0	0	0	0	As Miscellaneous
Annual Maint-computer software	60,000	50,000	51,500	53,045	54,636	56,275	57,964	59,703	61,494	63,339	65,239	As Office and Operating Supplies
Travel/Meetings	11,000	8,000	8,160	8,323	8,490	8,659	8,833	9,009	9,189	9,373	9,561	As Miscellaneous
Dues/Subscriptions	4,000	4,000	4,080	4,162	4,245	4,330	4,416	4,505	4,595	4,687	4,780	As Miscellaneous
Training	9,000	10,000	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	As Miscellaneous
Public Education	9,500	9,000	9,180	9,364	9,551	9,742	9,937	10,135	10,338	10,545	10,756	As Miscellaneous
Communications	11,000	11,000	11,220	11,444	11,673	11,907	12,145	12,388	12,636	12,888	13,146	As Miscellaneous
Utilities			0	0	0	0	0	0	0	0	0	As Other Utilities
R/M Auto	1,000	1,000	1,060	1,124	1,191	1,262	1,338	1,419	1,504	1,594	1,689	As Machinery and Equipment
Bad Debt Expense	4,500	0	0	0	0	0	0	0	0	0	0	As Miscellaneous
Public Art Fee	17,300	0	0	0	0	0	0	0	0	0	0	As Miscellaneous
Interfund Overhead Transfer	830,388	851,148	876,682	902,983	930,072	957,975	986,714	1,016,315	1,046,805	1,078,209	1,110,555	As Salaries and Wages
Total Adminstration	**$1,188,188**	**$1,172,148**	**$1,210,937**	**$1,251,085**	**$1,292,641**	**$1,335,659**	**$1,380,193**	**$1,426,300**	**$1,474,040**	**$1,523,475**	**$1,574,669**	

	Budget	*Budget*	*Projected*									
	FY 2022	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**FY 2031**	**FY 2032**	*Notes*
Treatment												
Operating Supplies - Plant	$950,000	$1,500,000	$1,545,000	$1,591,350	$1,639,091	$1,688,263	$1,738,911	$1,791,078	$1,844,811	$1,900,155	$1,957,160	As Office and Operating Supplies
Lab Supplies - Plant	34,000	34,000	35,020	36,071	37,153	38,267	39,415	40,598	41,816	43,070	44,362	As Office and Operating Supplies
Pretreatment	38,500	35,000	36,050	37,132	38,245	39,393	40,575	41,792	43,046	44,337	45,667	As Office and Operating Supplies
Surface Water Tests (Permit Required)	10,000	11,000	11,220	11,444	11,673	11,907	12,145	12,388	12,636	12,888	13,146	As Miscellaneous
Minor Equipment/Replacement/Plant			0	0	0	0	0	0	0	0	0	As Machinery and Equipment
Fuels - Plant	8,000	11,000	11,330	11,670	12,020	12,381	12,752	13,135	13,529	13,934	14,353	As Office and Operating Supplies
Professional Services			0	0	0	0	0	0	0	0	0	As Professional Services
Contract Services	6,000	2,000	2,100	2,205	2,315	2,431	2,553	2,680	2,814	2,955	3,103	As Professional Services
Utilities - Plant	550,000	600,000	630,000	661,500	1,100,989	1,156,039	1,213,841	1,274,533	1,338,259	1,405,172	1,475,431	As Purchased Power
Solid Waste Fees	1,500	1,500	1,575	1,654	1,736	1,823	1,914	2,010	2,111	2,216	2,327	As Other Utilities
Rental Equip/Plant	2,000	4,000	4,240	4,494	4,764	5,050	5,353	5,674	6,015	6,375	6,758	As Machinery and Equipment
R/M Grounds/Plant	25,000	20,000	21,200	22,472	23,820	25,250	26,765	28,370	30,073	31,877	33,790	As Repairs and Maintenance
R/M Buildings -Plant	40,000	35,000	37,100	39,326	41,686	44,187	46,838	49,648	52,627	55,785	59,132	As Repairs and Maintenance
R/M Auto	8,000	8,000	8,480	8,989	9,528	10,100	10,706	11,348	12,029	12,751	13,516	As Repairs and Maintenance
R/M Other/Plant	190,000	210,000	222,600	235,956	250,113	265,120	281,027	297,889	315,762	334,708	354,791	As Repairs and Maintenance
Interest Loader Lease Payments	17,380	17,000	17,340	17,687	18,041	18,401	18,769	19,145	19,528	19,918	20,317	As Miscellaneous
Protective Clothing	6,000	8,000	8,240	8,487	8,742	9,004	9,274	9,552	9,839	10,134	10,438	As Office and Operating Supplies
Safety	10,000	10,000	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	As Miscellaneous
Total Treatment	**$1,896,380**	**$2,506,500**	**$2,601,695**	**$2,700,840**	**$3,210,529**	**$3,338,439**	**$3,471,878**	**$3,611,102**	**$3,756,379**	**$3,907,993**	**$4,066,239**	
Collection												
Operating Supplies/Collection	$10,000	$8,000	$8,240	$8,487	$8,742	$9,004	$9,274	$9,552	$9,839	$10,134	$10,438	As Office and Operating Supplies
Collection Odor Control	25,000	30,000	30,900	31,827	32,782	33,765	34,778	35,822	36,896	38,003	39,143	As Office and Operating Supplies
Fuels/Collection	13,000	34,000	35,020	36,071	37,153	38,267	39,415	40,598	41,816	43,070	44,362	As Office and Operating Supplies
Compound Water Meter Change-Out	15,000	15,000	15,900	16,854	17,865	18,937	20,073	21,278	22,554	23,908	25,342	As Repairs and Maintenance
Leases - Burlington Northern	0		0	0	0	0	0	0	0	0	0	As Miscellaneous
Sewer Backup Claims	0		0	0	0	0	0	0	0	0	0	As Miscellaneous
Utilities/Collection	28,000	28,000	29,400	30,870	32,414	34,034	35,736	37,523	39,399	41,369	43,437	As Other Utilities
R/M Auto/Collection	15,000	15,000	15,900	16,854	17,865	18,937	20,073	21,278	22,554	23,908	25,342	As Repairs and Maintenance
R/M Other/Collection	23,000	23,000	24,380	25,843	27,393	29,037	30,779	32,626	34,583	36,659	38,858	As Repairs and Maintenance
Total Collection	**$129,000**	**$153,000**	**$159,740**	**$166,806**	**$174,214**	**$181,982**	**$190,130**	**$198,676**	**$207,642**	**$217,050**	**$226,923**	

	Budget	*Budget*	*Projected*									
	FY 2022	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**FY 2031**	**FY 2032**	*Notes*
Sludge Management												
Operating Supplies, Compost	$75,000	$85,000	$87,550	$90,177	$92,882	$95,668	$98,538	$101,494	$104,539	$107,675	$110,906	As Office and Operating Supplies
Lab Reports for Compost	3,500	3,500	3,605	3,713	3,825	3,939	4,057	4,179	4,305	4,434	4,567	As Office and Operating Supplies
Minor Equip/Replacement/Compost			0	0	0	0	0	0	0	0	0	As Machinery and Equipment
Fuels, Compost	10,000	15,200	15,504	15,814	16,130	16,453	16,782	17,118	17,460	17,809	18,165	As Miscellaneous
Utilities, Compost	23,000	23,000	24,150	25,358	26,625	27,957	29,354	30,822	32,363	33,981	35,681	As Other Utilities
R/M Grounds, Compost	8,000	3,000	3,180	3,371	3,573	3,787	4,015	4,256	4,511	4,782	5,068	As Repairs and Maintenance
R/M Buildings, Compost	5,000	3,000	3,180	3,371	3,573	3,787	4,015	4,256	4,511	4,782	5,068	As Repairs and Maintenance
R/M Auto, Compost	1,000	1,000	1,060	1,124	1,191	1,262	1,338	1,419	1,504	1,594	1,689	As Repairs and Maintenance
R/M Other, Compost	10,000	12,000	12,720	13,483	14,292	15,150	16,059	17,022	18,044	19,126	20,274	As Repairs and Maintenance
Total Sludge Management	**$135,500**	**$145,700**	**$150,949**	**$156,410**	**$162,091**	**$168,004**	**$174,159**	**$180,565**	**$187,236**	**$194,183**	**$201,418**	
Additional O&M	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	
Total O&M Expenses	**$6,383,497**	**$7,563,972**	**$7,817,544**	**$8,080,190**	**$8,758,676**	**$9,060,861**	**$9,374,239**	**$9,949,260**	**$10,293,893**	**$10,651,354**	**$11,022,162**	
		18.5%	3.4%	3.4%	8.4%	3.5%	3.5%	6.1%	3.5%	3.5%	3.5%	
Rate Funded Capital	**$4,919,147**	**$4,600,000**	**$4,700,000**	**$4,850,000**	**$5,200,000**	**$5,650,000**	**$6,000,000**	**$6,350,000**	**$6,700,000**	**$6,950,000**	**$7,200,000**	FY 2022 Dep. Exp. $4.6m
Debt Service												
2021A Sewer Revenue Bonds	$0	$874,600	$904,600	$2,868,400	$2,868,600	$2,870,600	$2,869,200	$2,869,400	$2,866,000	$2,869,000	$2,868,000	Debt Schedule
2021B Sewer Revenue Bonds	0	1,994,000	1,963,500	0	0	0	0	0	0	0	0	Debt Schedule
2020 Sewer Revenue Bonds	2,016,229	0	0	0	0	0	0	0	0	0	0	Refunded With 2021A&B
2013 Sewer Revenue Bonds	644,841	644,841	644,841	644,841	644,841	644,841	644,841	648,002	641,680	644,841	644,841	Debt Schedule
2015 Sewer Revenue Bonds	528,222	0	0	0	0	0	0	0	0	0	0	Refunded With 2021A&B
2012D Sewer Revenue Bonds	1,005,700	0	0	0	0	0	0	0	0	0	0	Refunded With 2021A&B
Additional Revenue Bond	0	0	0	0	0	0	0	0	0	0	0	Calc'd @ 4.8% for 20 yrs
Additional Low Interest Loan	0	0	0	0	0	0	461,853	461,853	461,853	461,853	461,853	Calc'd @ 2.8% for 20 yrs
Total Debt Service	$4,194,992	$3,513,441	$3,512,941	$3,513,241	$3,513,441	$3,515,441	$3,975,894	$3,979,255	$3,969,533	$3,975,694	$3,974,694	
Less Cap. Fee Revenue for Debt Service	$0	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	
Net Debt Service	**$4,194,992**	**$3,013,441**	**$3,012,941**	**$3,013,241**	**$3,013,441**	**$3,015,441**	**$3,475,894**	**$3,479,255**	**$3,469,533**	**$3,475,694**	**$3,474,694**	

	Budget FY 2022	*Budget* FY 2023	*Projected* FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	*Notes*
Transfers												
In												
Transfer from Operating Reserve Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Out												
Transfer to Operating Reserve Fund	0	0	0	0	0	0	0	0	0	0	0	
Transfer to Capital Reserve Fund	0	0	0	0	0	0	0	0	0	0	0	
Transfer Out												
Total Transfers	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	
Total Revenue Requirement	**$15,497,636**	**$15,177,413**	**$15,530,485**	**$15,943,431**	**$16,972,117**	**$17,726,302**	**$18,850,133**	**$19,778,515**	**$20,463,426**	**$21,077,048**	**$21,696,856**	
Bal. / (Def.) of Funds	($1,329,699)	($873,266)	($1,066,520)	($1,409,584)	($2,349,115)	($3,005,189)	($4,016,104)	($4,829,130)	($5,398,539)	($5,896,909)	($6,400,846)	
Balance a % of Rate Adj. Req'd	9.4%	6.1%	7.4%	9.8%	16.2%	20.5%	27.2%	32.5%	36.1%	39.1%	42.1%	
Proposed Rate Adjustment	**0.0%**	**5.0%**	**5.0%**	**5.0%**	**5.0%**	**5.0%**	**5.0%**	**2.0%**	**2.0%**	**2.0%**	**2.0%**	
Month Rates go into Effect	April	April	April	April	April	April	April	April	April	April	April	
Add'l Revenue with Rate Adj.	$0	$328,193	$1,063,340	$1,846,269	$2,679,807	$3,566,945	$4,510,852	$5,239,020	$5,683,179	$6,141,907	$6,615,637	
Bal. / (Def.) After Rate Adj.	($1,329,699)	($545,073)	($3,179)	$436,686	$330,692	$561,757	$494,748	$409,890	$284,639	$244,998	$214,791	
Add'l Rate Adj. Req'd	**9.4%**	**3.8%**	**0.0%**	**-3.0%**	**-2.3%**	**-3.8%**	**-3.4%**	**-2.8%**	**-1.9%**	**-1.6%**	**-1.4%**	
Debt Service Coverage Ratio												
Before Rate Adjustment	1.86	1.92	1.89	1.84	1.67	1.61	1.37	1.26	1.20	1.14	1.08	
After Rate Adjustment	1.86	2.01	2.19	2.36	2.43	2.62	2.51	2.57	2.63	2.68	2.74	
Average Monthly Residential Bill												
Customer Bill on Proposed Adjustment	$48.81	$51.25	$53.81	$56.50	$59.33	$62.30	$65.41	$66.72	$68.05	$69.41	$70.80	
Bill Difference - Monthly		2.44	2.56	2.69	2.83	2.97	3.11	1.31	1.33	1.36	1.39	
Cumulative Bill Difference		2.44	5.00	7.69	10.52	13.49	16.60	17.91	19.24	20.60	21.99	

	Budget	*Budget*	*Projected*									
	FY 2022	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**FY 2031**	**FY 2032**	*Notes*
Reserve Funds												
Beginning Balances As of:	**5/21/2022 (midyear)**											
Beginning Reserve Balance	**$25,365,639**	**$24,287,446**	**$20,195,373**	**$12,639,177**	**$8,271,431**	**$4,840,032**	**$6,353,220**	**$9,641,929**	**$14,798,426**	**$15,925,659**	**$18,589,517**	
Operating Reserve												
Beginning Balance	**$14,592,488**	**$13,262,789**	**$12,117,716**	**$7,027,615**	**$5,229,082**	**$3,256,285**	**$3,393,042**	**$3,887,790**	**$4,297,680**	**$4,582,319**	**$4,827,317**	
Plus: Additions	0	0	0	0	0	0	0	0	0	0	0	
Ending Fund Balance	(1,329,699)	(545,073)	(3,179)	436,686	330,692	561,757	494,748	409,890	284,639	244,998	214,791	
Less: Uses of Funds	0	(600,000)	(5,086,922)	(2,235,218)	(2,303,489)	(425,000)	0	0	0	0	0	
Ending Balance	**$13,262,789**	**$12,117,716**	**$7,027,615**	**$5,229,082**	**$3,256,285**	**$3,393,042**	**$3,887,790**	**$4,297,680**	**$4,582,319**	**$4,827,317**	**$5,042,108**	
Minimum Balance = 60 Days of O&M	*$1,049,342*	*$1,243,393*	*$1,285,076*	*$1,328,250*	*$1,439,782*	*$1,489,457*	*$1,540,971*	*$1,635,495*	*$1,692,147*	*$1,750,908*	*$1,811,862*	
Target Balance = 180 Days of O&M	*$3,148,026*	*$3,730,178*	*$3,855,227*	*$3,984,751*	*$4,319,347*	*$4,468,370*	*$4,622,912*	*$4,906,484*	*$5,076,440*	*$5,252,723*	*$5,435,587*	
Capital Fund												
Beginning Balance	**$3,500,000**	**$3,517,500**	**$139,865**	**$139,865**	**$139,865**	**$139,865**	**$139,865**	**$1,433,825**	**$4,680,432**	**$7,543,205**	**$8,462,065**	
Plus: Additions	0	0	0	0	0	0	1,293,960	3,246,607	2,862,773	918,860	3,876,842	
Less: Uses of Funds	0	(3,377,635)	0	0	0	0	0	0	0	0	0	
Interest Income	17,500	13,715	1,399	1,399	1,399	1,399	7,868	30,571	61,118	80,026	104,005	
Ending Balance	**$3,517,500**	**$139,865**	**$139,865**	**$139,865**	**$139,865**	**$139,865**	**$1,433,825**	**$4,680,432**	**$7,543,205**	**$8,462,065**	**$12,338,907**	
Target Balance = Average Annual CIP	**$8,776,517**	**$8,776,517**	**$8,776,517**	**$8,776,517**	**$8,776,517**	**$8,776,517**	**$8,776,517**	**$8,776,517**	**$8,776,517**	**$8,776,517**	**$8,776,517**	
Cap Fee Fund												
Beginning Balance	**$5,836,453**	**$6,063,275**	**$6,493,910**	**$4,027,815**	**$1,458,602**	**$0**	**$1,376,432**	**$2,876,432**	**$4,376,432**	**$2,356,253**	**$3,856,253**	
Plus: SDCs	1,500,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	
Less: Uses of Funds	(1,302,853)	(1,569,365)	(4,466,095)	(4,569,213)	(3,458,602)	(623,568)	(500,000)	(500,000)	(4,020,179)	(500,000)	(500,000)	
Interest Income	29,675	47,089	52,609	27,432	7,293	6,882	21,264	36,264	33,663	31,063	46,063	
Ending Balance	**$6,063,275**	**$6,493,910**	**$4,027,815**	**$1,458,602**	**$0**	**$1,376,432**	**$2,876,432**	**$4,376,432**	**$2,356,253**	**$3,856,253**	**$5,356,253**	
Equipment Replacement Fund												
Beginning Balance	**$1,436,698**	**$1,443,881**	**$1,443,881**	**$1,443,881**	**$1,443,881**	**$1,443,881**	**$1,443,881**	**$1,443,881**	**$1,443,881**	**$1,443,881**	**$1,443,881**	
Plus: Additions												
Less: Uses of Funds												
Interest Income	7,183	10,829	14,439	14,439	14,439	14,439	14,439	14,439	14,439	14,439	14,439	
Ending Balance	**$1,443,881**	**$1,443,881**	**$1,443,881**	**$1,443,881**	**$1,443,881**	**$1,443,881**	**$1,443,881**	**$1,443,881**	**$1,443,881**	**$1,443,881**	**$1,443,881**	
Total Ending Reserves	**$24,287,446**	**$20,195,373**	**$12,639,177**	**$8,271,431**	**$4,840,032**	**$6,353,220**	**$9,641,929**	**$14,798,426**	**$15,925,659**	**$18,589,517**	**$24,181,150**	

City of Coeur D'Alene
Rate and Capitalization Fee Study
Revenue Requirement
Exhibit 3 - Capital Improvement Plan

	% Capacity Related	Equipment Replace	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total (23-32)	Notes
Rate Study														
Equipment Replacement	0%		$0	$606,579	$622,350	$638,531	$655,133	$672,167	$689,643	$707,574	$725,971	$744,846	**$6,062,794**	
Capital Replacement Fund	0%		0	1,166,498	1,196,827	1,227,945	1,259,871	1,292,628	1,326,236	1,360,719	1,396,097	1,432,396	**11,659,219**	
Collection System	0%		0	874,874	897,621	920,959	944,904	969,471	994,677	1,020,539	1,047,073	1,074,297	**8,744,414**	
Outfall Modification/Expansion	100%		0	0	0	0	0	0	0	0	0	0	**0**	
Annual SCADA Updates	0%		0	0	0	0	62,994	64,631	66,312	68,036	69,805	71,620	**403,397**	
Membrane Replacment (only 5C1 within planning period)	0%		0	0	0	613,972	0	0	0	0	0	0	**613,972**	
Foul Odor Bed Media Replacement	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Operations Control Building	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Reuse Feasibility Study	0%		0	116,650	0	0	0	0	0	0	0	0	**116,650**	
Disinfection Feasibility Study	0%		0	116,650	0	0	0	0	0	0	0	0	**116,650**	
Asset Management	0%		0	58,325	59,841	61,397	0	0	0	0	0	0	**179,564**	
Reclaimed Water Projects	0%		0	0	0	0	0	0	0	0	1,396,097	0	**1,396,097**	
Rate Study Total			**0**	**2,647,951**	**2,716,798**	**3,401,407**	**2,922,902**	**2,998,897**	**3,076,869**	**3,156,867**	**3,238,946**	**3,323,158**	**29,292,757**	
2018 Condition Assessment														
IPS Pump Replacement	0%		0	0	0	0	0	0	0	0	1,396,097	0	**1,396,097**	
Primary Clarifier Mechanism Renewal and Replacement	0%		0	0	0	0	0	0	0	680,359	0	0	**680,359**	
Trickling Filter Distribution Arm Evaluation	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Trickling Filter Exterior Painting	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Aeration Basin Diffuser Membrane Replacement	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Compost Filter Bed Media Replacement	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Arc Flash and Electrical Hazard Analysis	0%		0	23,330	0	0	0	0	26,525	0	0	0	**49,855**	
Standby Power for Admin and Collection Facility	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Standby Power for Solids Contact Facilities	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Emergency Facilities Resiliency Planning	0%		0	0	0	0	0	0	0	0	0	0	**0**	
SCADA Server Redundancy Upgrades - Admin or Ops Building	0%		0	0	0	0	0	0	0	0	0	0	**0**	
2018 Condition Assessment - Total			**0**	**23,330**	**0**	**0**	**0**	**0**	**26,525**	**680,359**	**1,396,097**	**0**	**2,126,311**	
2018 Process Improvements			0	0	0	0	0	0	0	0	0	0		
Grit Removal Expansion	100%		0	0	0	0	0	0	0	3,520,179	0	0	**3,520,179**	
Trickling Filter Rehab	0%		0	0	0	0	0	8,707,143	0	0	0	0	**8,707,143**	
TMF Mixing Tank Expansion	100%		0	0	0	3,192,657	3,275,666	0	0	0	0	0	**6,468,323**	Membrane Fil
TMF Membrane Expansion	100%		0	3,966,095	4,069,213	0	0	0	0	0	0	0	**8,035,308**	
Dewatering Equipment Upgrades	100%		0	0	0	0	0	0	0	0	0	0	**0**	
2018 Process Improvements - Total			**0**	**3,966,095**	**4,069,213**	**3,192,657**	**3,275,666**	**8,707,143**	**0**	**3,520,179**	**0**	**0**	**26,730,953**	
Budgeted Capital			0	0	0	0	0	0	0	0	0	0		
Capital Replacement Fund	0%		1,000,000	0	0	0	0	0	0	0	0	0	**1,000,000**	
AWTF Facility Plan	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Rate Study	0%		80,000	0	0	0	0	0	0	0	0	0	**80,000**	
Collections Building	0%		563,000	0	0	0	0	0	0	0	0	0	**563,000**	
Mill River Lift Station	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Sewer Replacement/Collection	23%		1,600,000	0	0	0	0	0	0	0	0	0	**1,600,000**	
GIS / Sewer Planning Carryover (1)	0%		194,000	0	0	0	0	0	0	0	0	0	**194,000**	
Easement Acquisition	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Operations Center Planning/Design Carryover (2)	0%		1,250,000	1,458,123	0	0	0	0	0	0	0	0	**2,708,123**	
Centrate Screening Carryover (3)	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Riverside Intercepter Oversizing	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Door Replacement - Chem proof doors	0%		0	0	0	0	0	0	0	0	0	0	**0**	

City of Coeur D'Alene
Rate and Capitalization Fee Study
Revenue Requirement
Exhibit 3 - Capital Improvement Plan

	% Capacity Related	Equipment Replace	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	Total (23-32)	Notes
Primary Clarifier #2 Electrical Corrosion Mitigation	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Outfall Maintenance / Planning (4)	0%		300,000	1,283,148	0	0	0	0	0	0	0	0	**1,583,148**	
Pre-aeration Scum Removal Modification (5)	100%		0	0	0	0	0	0	0	0	0	0	**0**	
Solids Handling Improvements Carryover (6)	0%		3,000,000	2,916,246	0	0	0	0	0	0	0	0	**5,916,246**	
TMF Mixing Tank Expansion Study/Design 5C.3 (7)	100%		700,000	0	0	0	0	0	0	0	0	0	**700,000**	
Equipment Replacements	0%		0	0	0	0	0	0	0	0	0	0	**0**	
SCADA and Control Systems	0%		250,000	1,166,498	1,196,827	1,227,945	0	0	0	0	0	0	**3,841,271**	
Vehicle Replacement	0%		35,000	0	0	0	0	0	0	0	0	0	**35,000**	
Jet Truck	0%		300,000	0	0	0	0	0	0	0	0	0	**300,000**	
Collection Service Truck	0%		85,000	0	0	0	0	0	0	0	0	0	**85,000**	
Lab Vehicle	0%		30,000	0	0	0	0	0	0	0	0	0	**30,000**	
Compost Facility Biosolids Hopper/Auger	0%		0	0	0	0	0	0	0	0	0	0	**0**	
UV Disinfection Upgrades	0%		0	0	2,513,338	2,578,684	0	0	0	0	0	0	**5,092,022**	
Compost Building	0%		0	0	598,414	0	0	0	0	0	0	0	**598,414**	
Inspection Truck	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Backhoe	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Dump Truck	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Utility Vehicle	0%		0	0	0	0	0	0	0	0	0	0	**0**	
Washer/Compactor Replacement	0%		60,000	0	0	0	0	0	0	0	0	0	**60,000**	
Trickling Filter Feed Pump	0%		200,000	0	0	0	0	0	0	0	0	0	**200,000**	
Budgeted Capital - Total			9,647,000	6,824,016	4,308,579	3,806,629	0	0	0	0	0	0	**24,586,224**	
Total Capital Projects			**$9,647,000**	**$13,753,017**	**$11,154,431**	**$10,462,091**	**$6,198,568**	**$11,706,040**	**$3,103,393**	**$7,357,406**	**$6,031,140**	**$3,323,158**	**$82,736,245**	
Unidentified Future Capital Projects			0	0	0	0	0	0	0	0	0	0	**$0**	
Transfer to Cash Reserve			0	0	0	0	0	1,293,960	3,246,607	2,862,773	918,860	3,876,842	**12,199,042**	
Total Capital Improvement Projects			**$9,647,000**	**$13,753,017**	**$11,154,431**	**$10,462,091**	**$6,198,568**	**$13,000,000**	**$6,350,000**	**$10,220,179**	**$6,950,000**	**$7,200,000**	**$94,935,287**	
Less: Outside Funding Sources														
Operating Fund Reserves			$600,000	$5,086,922	$2,235,218	$2,303,489	$425,000	$0	$0	$0	$0	$0	**$10,650,629**	
Capital Fund Reserves			3,377,635	0	0	0	0	0	0	0	0	0	**3,377,635**	
Cap Fee Fund			1,069,365	3,966,095	4,069,213	2,958,602	123,568	0	0	3,520,179	0	0	**15,707,022**	
Equipment Replacement Fund			0	0	0	0	0	0	0	0	0	0	**0**	
Developer Contributions			0	0	0	0	0	0	0	0	0	0	**0**	
Blank			0	0	0	0	0	0	0	0	0	0	**0**	
Loan Repayment			0	0	0	0	0	0	0	0	0	0	**0**	
Assumed Low Interest Loan			0	0	0	0	0	7,000,000	0	0	0	0	**7,000,000**	
Assumed Revenue Bond			0	0	0	0	0	0	0	0	0	0	**0**	
Additional Revenue Bonds			0	0	0	0	0	0	0	0	0	0	**0**	
Total Funding Sources			**$5,047,000**	**$9,053,017**	**$6,304,431**	**$5,262,091**	**$548,568**	**$7,000,000**	**$0**	**$3,520,179**	**$0**	**$0**	**$36,735,286**	
Rate Funded Capital			**$4,600,000**	**$4,700,000**	**$4,850,000**	**$5,200,000**	**$5,650,000**	**$6,000,000**	**$6,350,000**	**$6,700,000**	**$6,950,000**	**$7,200,000**	**$62,444,514**	

City of Coeur D'Alene
Rate and Capitalization Fee Study
Revenue Requirement
Exhibit 4 - Debt Service

	2013 Refunding			2021A $22,075,000			2021B $5,085,000		
	Principal	**Interest**	**Total**	**Principal**	**Interest**	**Total**	**Principal**	**Interest**	**Total**
FY 2021	$0	$0	$0	$0	$0	$0	$0	$0	$0
FY 2022	609,620	35,221	644,841	0	655,950	655,950	1,355,000	188,813	1,543,813
FY 2023	612,672	32,169	644,841	0	874,600	874,600	1,810,000	184,000	1,994,000
FY 2024	615,657	29,184	644,841	30,000	874,600	904,600	1,870,000	93,500	1,963,500
FY 2025	618,821	26,020	644,841	1,995,000	873,400	2,868,400	0	0	0
FY 2026	621,919	22,922	644,841	2,075,000	793,600	2,868,600	0	0	0
FY 2027	625,033	19,808	644,841	2,160,000	710,600	2,870,600	0	0	0
FY 2028	628,114	16,727	644,841	2,245,000	624,200	2,869,200	0	0	0
FY 2029	634,467	13,535	648,002	2,335,000	534,400	2,869,400	0	0	0
FY 2030	631,306	10,374	641,680	2,425,000	441,000	2,866,000	0	0	0
FY 2031	637,643	7,198	644,841	2,525,000	344,000	2,869,000	0	0	0
FY 2032	640,822	4,019	644,841	2,625,000	243,000	2,868,000	0	0	0
FY 2033	321,623	797	322,420	3,050,000	138,000	3,188,000	0	0	0
FY 2034			0	400,000	16,000	416,000	0	0	0
FY 2035			0	0	0	0	0	0	0
FY 2036			0	0	0	0	0	0	0
FY 2037			0	0	0	0	0	0	0
FY 2038			0	0	0	0	0	0	0
FY 2039			0	0	0	0	0	0	0
FY 2040			0	0	0	0	0	0	0
FY 2041			0	0	0	0	0	0	0
FY 2042			0	0	0	0	0	0	0
FY 2043			0	0	0	0	0	0	0
FY 2044			0	0	0	0	0	0	0
FY 2045			0	0	0	0	0	0	0
FY 2046			0	0	0	0	0	0	0
FY 2047			0	0	0	0	0	0	0
Total	**$7,197,697**	**$217,974**	**$7,415,671**	**$21,865,000**	**$7,123,350**	**$28,988,350**	**$5,035,000**	**$466,313**	**$5,501,313**

Effective 4/1/2022		FY 2022	January	February	March	April	May	June	July	August	September	October	November	December	Total
Residential															
Monthly Service Charge		***Monthly***													
Residential	SERS	$14.99	12,048	12,048	12,048	12,048	12,048	12,048	12,048	12,048	12,048	12,048	12,048	12,048	12,048
Residential - Vacation	SERV	$14.99	53	53	53	53	53	53	53	53	53	53	53	53	53
Residential-Low	SERSL	$14.99	2,832	2,832	2,832	2,832	2,832	2,832	2,832	2,832	2,832	2,832	2,832	2,832	2,832
Duplex-One Meter	SERMF	$14.99	714	714	714	714	714	714	714	714	714	714	714	714	714
			15,646	**15,646**	**15,646**	**15,646**	**15,646**	**15,646**	**15,646**	**15,646**	**15,646**	**15,646**	**15,646**	**15,646**	**15,646**
Usage Charge per Month Dwelling Unit		***Monthly***													
Residential	SERS	$33.82	12,048	12,048	12,048	12,048	12,048	12,048	12,048	12,048	12,048	12,048	12,048	12,048	12,048
Residential - Vacation	SERV	$0.00	53	53	53	53	53	53	53	53	53	53	53	53	53
Residential-Low	SERSL	$6.24	2,832	2,832	2,832	2,832	2,832	2,832	2,832	2,832	2,832	2,832	2,832	2,832	2,832
Duplex-One Meter	SERMF	67.64	714	714	714	714	714	714	714	714	714	714	714	714	714
			15,646	**15,646**	**15,646**	**15,646**	**15,646**	**15,646**	**15,646**	**15,646**	**15,646**	**15,646**	**15,646**	**15,646**	**15,646**
Total Monthly Service Charge Revenue			$707,957	$707,957	$707,957	$707,957	$707,957	$707,957	$707,957	$707,957	$707,957	$707,957	$707,957	$707,957	$8,495,490
Volume Charge		***$ / 1,000 gal***													
Residential	SERS	$0.00	55,992	55,992	55,992	55,992	55,992	55,992	55,992	55,992	55,992	55,992	55,992	55,992	671,903
Residential	SERV	$0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
Residential-Low	SERSL	$0.00	7,031	7,031	7,031	7,031	7,031	7,031	7,031	7,031	7,031	7,031	7,031	7,031	84,372
Duplex-One Meter	SERMF	$0.00	6,637	6,637	6,637	6,637	6,637	6,637	6,637	6,637	6,637	6,637	6,637	6,637	79,648
			69,660	**69,660**	**69,660**	**69,660**	**69,660**	**69,660**	**69,660**	**69,660**	**69,660**	**69,660**	**69,660**	**69,660**	**835,924**
Total Volume Charge Revenue			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Residential	SSADJ		9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	108,000
Total Residential Revenue			**$716,957**	**$716,957**	**$716,957**	**$716,957**	**$716,957**	**$716,957**	**$716,957**	**$716,957**	**$716,957**	**$716,957**	**$716,957**	**$716,957**	**$8,603,490**
		$937,291.96													
Residential Fernan															

Effective 4/1/2022		**FY 2022**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**	**Total**
Residential Fernan															
Fixed Charge		***Monthly***													
Fernan-Residential	SERF	$14.99	65	65	65	65	65	65	65	65	65	65	65	65	65
			65	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**
Fixed Charge		***Monthly***													
Fernan-Residential	SERF	$24.17	65	65	65	65	65	65	65	65	65	65	65	65	65
			65	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**	**65**
Total Fixed Charge Revenue			$2,531	$2,531	$2,531	$2,531	$2,531	$2,531	$2,531	$2,531	$2,531	$2,531	$2,531	$2,531	$30,376
Volume Charge		***$ / 1,000 gal***													
Fernan-Residential	SERF	$0.00	300	300	300	300	300	300	300	300	300	300	300	300	3,605
			300	**300**	**300**	**300**	**300**	**300**	**300**	**300**	**300**	**300**	**300**	**300**	**3,605**
Total Volume Charge Revenue			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
			5												
Total Residential Fernan Revenue			**$2,531**	**$2,531**	**$2,531**	**$2,531**	**$2,531**	**$2,531**	**$2,531**	**$2,531**	**$2,531**	**$2,531**	**$2,531**	**$2,531**	**$30,376**
Commercial Low															
Fixed Charge		***Monthly***													
Commercial-Low	CWCL	$14.99	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660
			1,660	**1,660**	**1,660**	**1,660**	**1,660**	**1,660**	**1,660**	**1,660**	**1,660**	**1,660**	**1,660**	**1,660**	**830**
Total Fixed Charge Revenue			$24,890	$24,890	$24,890	$24,890	$24,890	$24,890	$24,890	$24,890	$24,890	$24,890	$24,890	$24,890	$298,680
Volume Charge		***$ / 1,000 gal***													
Commercial-Low	CWCL	$5.61	79,153	81,444	75,173	59,529	36,100	32,614	36,178	32,987	32,121	38,584	34,242	57,929	596,058
Total Volume Charge Revenue			$444,047	$456,899	$421,719	$333,957	$202,522	$182,966	$202,959	$185,055	$180,199	$216,455	$192,098	$324,982	$3,343,856
Total Commercial Low Revenue			**$468,937**	**$481,789**	**$446,609**	**$358,847**	**$227,412**	**$207,856**	**$227,849**	**$209,945**	**$205,089**	**$241,345**	**$216,988**	**$349,872**	**$3,642,536**

Effective 4/1/2022		FY 2022	January	February	March	April	May	June	July	August	September	October	November	December	Total
Commercial Medium															
Fixed Charge		***$ / Acct.***													
Commercial-Medium	CWCM	$14.99	130	130	130	130	130	130	130	130	130	130	130	130	130
			130	**130**	**130**	**130**	**130**	**130**	**130**	**130**	**130**	**130**	**130**	**130**	**130**
Total Fixed Charge Revenue			$1,953	$1,953	$1,953	$1,953	$1,953	$1,953	$1,953	$1,953	$1,953	$1,953	$1,953	$1,953	$23,437
Volume Charge		***$ / 1,000 gal***													
Commercial-Medium	CWCM	$6.44	9,058	10,463	9,540	7,781	5,228	4,696	5,107	4,299	4,602	5,609	4,579	7,173	78,143
			9,058	10,463	9,540	7,781	5,228	4,696	5,107	4,299	4,602	5,609	4,579	7,173	78,143
Total Volume Charge Revenue			$58,335	$67,381	$61,440	$50,112	$33,668	$30,245	$32,890	$27,687	$29,639	$36,120	$29,487	$46,196	$503,200
Total Commercial Medium Revenue			**$60,288**	**$69,334**	**$63,393**	**$52,065**	**$35,621**	**$32,198**	**$34,843**	**$29,640**	**$31,592**	**$38,073**	**$31,440**	**$48,149**	**$526,637**
Commercial High															
Fixed Charge		***$ / Acct.***													
Commercial-High	CWCH	$14.99	192	192	192	192	192	192	192	192	192	192	192	192	192
			192	192	192	192	192	192	192	192	192	192	192	192	192
Total Fixed Charge Revenue			$2,877	$2,877	$2,877	$2,877	$2,877	$2,877	$2,877	$2,877	$2,877	$2,877	$2,877	$2,877	$34,519
Volume Charge		***$ / 1,000 gal***													
Commercial-High	CWCH	$7.24	20,014	20,135	18,878	14,494	11,032	10,110	13,031	10,734	11,063	13,285	12,497	15,616	170,898
			20,014	20,135	18,878	14,494	11,032	10,110	13,031	10,734	11,063	13,285	12,497	15,616	170,898
Total Volume Charge Revenue			$144,904	$145,778	$136,680	$104,936	$79,873	$73,199	$94,345	$77,717	$80,097	$96,185	$90,477	$113,061	$1,237,252
Total Commercial High Revenue			**$147,781**	**$148,654**	**$139,556**	**$107,813**	**$82,750**	**$76,075**	**$97,221**	**$80,593**	**$82,973**	**$99,062**	**$93,354**	**$115,938**	**$1,271,771**

Effective 4/1/2022		FY 2022	January	February	March	April	May	June	July	August	September	October	November	December	Total
Commercial Fernan															
Fixed Charge		***$ / Acct.***													
Fernan-Commercial	SENRO6	$14.99	3	3	3	3	3	3	3	3	3	3	3	3	3
Fernan-Commercial	SENRF	$14.99	1	1	1	1	1	1	1	1	1	1	1	1	1
			4	4	4	4	4	4	4	4	4	4	4	4	4
Total Fixed Charge Revenue			$61	$61	$61	$61	$61	$61	$61	$61	$61	$61	$61	$61	$727
Volume Charge		***$ / 1,000 gal***													
Fernan-Commercial	SENRO6	4.86	56	56	56	56	56	56	56	56	56	56	56	56	674
Fernan-Commercial	SENRF	4.86	0	0	0	0	0	0	0	0	0	0	0	0	0
			56	56	56	56	56	56	56	56	56	56	56	56	674
Total Volume Charge Revenue			$273	$273	$273	$273	$273	$273	$273	$273	$273	$273	$273	$273	$3,276
Total Commercial Fernan Revenue			**$334**	**$334**	**$334**	**$334**	**$334**	**$334**	**$334**	**$334**	**$334**	**$334**	**$334**	**$334**	**$4,002**
Summary															

Effective 4/1/2022	FY 2022	January	February	March	April	May	June	July	August	September	October	November	December	Total
Summary														
Customers														
Residential		12,762	12,762	12,762	12,762	12,762	12,762	12,762	12,762	12,762	12,762	12,762	12,762	25,523
Residential Fernan		65	65	65	65	65	65	65	65	65	65	65	65	129
Commercial Low		1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	1,660	3,321
Commercial Medium		130	130	130	130	130	130	130	130	130	130	130	130	261
Commercial High		192	192	192	192	192	192	192	192	192	192	192	192	384
Commercial Fernan		4	4	4	4	4	4	4	4	4	4	4	4	8
	Total Number of Customers	**14,813**	**14,813**	**14,813**	**14,813**	**14,813**	**14,813**	**14,813**	**14,813**	**14,813**	**14,813**	**14,813**	**14,813**	**14,813**
Volume														
Residential		69,660	69,660	69,660	69,660	69,660	69,660	69,660	69,660	69,660	69,660	69,660	69,660	835,924
Residential Fernan		300	300	300	300	300	300	300	300	300	300	300	300	3,605
Commercial Low		79,153	81,444	75,173	59,529	36,100	32,614	36,178	32,987	32,121	38,584	34,242	57,929	596,053
Commercial Medium		9,058	10,463	9,540	7,781	5,228	4,696	5,107	4,299	4,602	5,609	4,579	7,173	78,137
Commercial High		20,014	20,135	18,878	14,494	11,032	10,110	13,031	10,734	11,063	13,285	12,497	15,616	170,891
Commercial Fernan		56	56	56	56	56	56	56	56	56	56	56	56	674
	Total Consumption	**178,242**	**182,059**	**173,608**	**151,821**	**122,377**	**117,438**	**124,333**	**118,037**	**117,803**	**127,495**	**121,335**	**150,735**	**1,685,283**
Revenues														
Residential		$716,957	$716,957	$716,957	$716,957	$716,957	$716,957	$716,957	$716,957	$716,957	$716,957	$716,957	$716,957	$8,603,490
Residential Fernan		2,531	2,531	2,531	2,531	2,531	2,531	2,531	2,531	2,531	2,531	2,531	2,531	30,376
Commercial Low		468,937	481,789	446,609	358,847	227,412	207,856	227,849	209,945	205,089	241,345	216,988	349,872	3,642,536
Commercial Medium		60,288	69,334	63,393	52,065	35,621	32,198	34,843	29,640	31,592	38,073	31,440	48,149	526,637
Commercial High		147,781	148,654	139,556	107,813	82,750	76,075	97,221	80,593	82,973	99,062	93,354	115,938	1,271,771
Commercial Fernan		334	334	334	334	334	334	334	334	334	334	334	334	4,002
	Total Revenues	**$1,396,827**	**$1,419,600**	**$1,369,381**	**$1,238,547**	**$1,065,605**	**$1,035,952**	**$1,079,735**	**$1,040,000**	**$1,039,476**	**$1,098,303**	**$1,061,604**	**$1,233,781**	**$14,078,812**

City of Coeur D'Alene
Rate and Capitalization Fee Study
Revenue Requirement
Exhibit 6 - Customer Forecast

Effective 4/1/2022		FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	
Residential													
Monthly Service Charge	***Monthly***												
Residential - SERS	$14.99	12,048	12,168	12,290	12,413	12,537	12,662	12,789	12,917	13,046	13,176	13,308	As Residential
Residential - Vacation - SERV	$14.99	53	53	54	54	55	55	56	56	57	57	58	As Residential
Residential-Low - SERSL	$14.99	2,832	2,860	2,889	2,918	2,947	2,977	3,006	3,036	3,067	3,097	3,128	As Residential
Duplex-One Meter - SERMF	$14.99	714	721	728	736	743	750	758	766	773	781	789	As Residential
		15,646	**15,803**	**15,961**	**16,120**	**16,282**	**16,444**	**16,609**	**16,775**	**16,943**	**17,112**	**17,283**	
Usage Charge per Month Dwelling Unit	***Monthly***												
Residential - SERS	$33.82	12,048	12,168	12,290	12,413	12,537	12,662	12,789	12,917	13,046	13,176	13,308	As Residential
Residential - Vacation - SERV	$0.00	53	53	54	54	55	55	56	56	57	57	58	As Residential
Residential-Low - SERSL	$6.24	2,832	2,860	2,889	2,918	2,947	2,977	3,006	3,036	3,067	3,097	3,128	As Residential
Duplex-One Meter - SERMF	$67.64	714	721	728	736	743	750	758	766	773	781	789	As Residential
		15,646	**15,803**	**15,961**	**16,120**	**16,282**	**16,444**	**16,609**	**16,775**	**16,943**	**17,112**	**17,283**	
Total Monthly Service Charge Revenue		$8,495,490	$8,580,445	$8,666,249	$8,752,912	$8,840,441	$8,928,845	$9,018,134	$9,108,315	$9,199,398	$9,291,392	$9,384,306	
Volume Charge	***$ / 1,000 gal***												
Residential - SERS	$0.00	671,903	678,622	680,658	682,700	684,748	686,802	688,862	690,929	693,002	695,081	697,166	As Residential Volume
Residential - SERV	$0.00	0	0	0	0	0	0	0	0	0	0	0	As Residential Volume
Residential-Low - SERSL	$0.00	84,372	85,216	85,472	85,728	85,985	86,243	86,502	86,762	87,022	87,283	87,545	As Residential Volume
Duplex-One Meter - SERMF	$0.00	79,648	80,445	80,686	80,928	81,171	81,415	81,659	81,904	82,150	82,396	82,643	As Residential Volume
		835,924	**844,283**	**846,816**	**849,356**	**851,904**	**854,460**	**857,023**	**859,594**	**862,173**	**864,760**	**867,354**	
Total Volume Charge Revenue		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Residential - SSADJ		108,000	108,000	108,000	108,000	108,000	108,000	108,000	108,000	108,000	108,000	108,000	As Flat
Total Residential Revenue		**$8,603,490**	**$8,688,445**	**$8,774,249**	**$8,860,912**	**$8,948,441**	**$9,036,845**	**$9,126,134**	**$9,216,315**	**$9,307,398**	**$9,399,392**	**$9,492,306**	

Effective 4/1/2022		FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	
Residential Fernan													
Monthly Service Charge	***Monthly***												
Fernan-Residential - SERF	$14.99	65	65	66	67	67	68	69	69	70	71	71	As Residential
		65	**65**	**66**	**67**	**67**	**68**	**69**	**69**	**70**	**71**	**71**	
Usage Charge per Month Dwelling Unit	***Monthly***												
Fernan-Residential - SERF	$24.17	65	65	66	67	67	68	69	69	70	71	71	As Residential
		65	**65**	**66**	**67**	**67**	**68**	**69**	**69**	**70**	**71**	**71**	
Total Monthly Service Charge Revenue		$30,376	$30,679	$30,986	$31,296	$31,609	$31,925	$32,244	$32,567	$32,892	$33,221	$33,554	
Volume Charge	***$ / 1,000 gal***												
Fernan-Residential - SERF	$0.00	3,605	3,641	3,652	3,663	3,674	3,685	3,696	3,707	3,718	3,729	3,741	As Residential Volume
		3,605	**3,641**	**3,652**	**3,663**	**3,674**	**3,685**	**3,696**	**3,707**	**3,718**	**3,729**	**3,741**	
Total Volume Charge Revenue		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Total Residential Fernan Revenue		**$30,376**	**$30,679**	**$30,986**	**$31,296**	**$31,609**	**$31,925**	**$32,244**	**$32,567**	**$32,892**	**$33,221**	**$33,554**	
Commercial Low													
Fixed Charge	***Monthly***												
Commercial-Low - CWCL	$14.99	1,660	1,677	1,694	1,711	1,728	1,745	1,763	1,780	1,798	1,816	1,834	As Commercial
		1,660	**1,677**	**1,694**	**1,711**	**1,728**	**1,745**	**1,763**	**1,780**	**1,798**	**1,816**	**1,834**	
Total Fixed Charge Revenue		$298,680	$301,667	$304,683	$307,730	$310,808	$313,916	$317,055	$320,225	$323,428	$326,662	$329,928	
Winter Water Adjusted Volume		412,215	416,337	417,586	418,839	420,095	421,355	422,620	423,887	425,159	426,435	427,714	As Commercial Vol.
Volume Charge	***$ / CCF***												
Commercial-Low - CWCL	$5.61	596,058	602,019	603,825	605,637	607,453	609,276	611,104	612,937	614,776	616,620	618,470	As Commercial Vol.
Total volume		596,058	602,019	603,825	605,637	607,453	609,276	611,104	612,937	614,776	616,620	618,470	
Total Volume Charge Revenue		$3,343,888	$3,377,327	$3,387,459	$3,397,621	$3,407,814	$3,418,037	$3,428,291	$3,438,576	$3,448,892	$3,459,239	$3,469,616	
Total Commercial Low Revenue		**$3,642,568**	**$3,678,993**	**$3,692,142**	**$3,705,351**	**$3,718,621**	**$3,731,953**	**$3,745,346**	**$3,758,802**	**$3,772,320**	**$3,785,901**	**$3,799,545**	

Effective 4/1/2022		FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	
Commercial Medium													
Fixed Charge	***Monthly***												
Commercial-Medium - CWCM	$14.99	130	132	133	134	136	137	138	140	141	142	144	As Commercial Medium
		130	**132**	**133**	**134**	**136**	**137**	**138**	**140**	**141**	**142**	**144**	
Total Fixed Charge Revenue		$23,437	$23,671	$23,908	$24,147	$24,388	$24,632	$24,878	$25,127	$25,378	$25,632	$25,889	
Winter Water Adjusted Volume		57,612	58,189	58,363	58,538	58,714	58,890	59,067	59,244	59,422	59,600	59,779	As Commercial Vol. Medium
Volume Charge	***$ / 1,000 gal***												
Commercial-Medium - CWCM	$6.44	78,143	78,925	79,161	79,399	79,637	79,876	80,116	80,356	80,597	80,839	81,081	As Commercial Vol. Medium
		78,143	78,925	79,161	79,399	79,637	79,876	80,116	80,356	80,597	80,839	81,081	
Total Volume Charge Revenue		$503,242	$508,274	$509,799	$511,329	$512,863	$514,401	$515,944	$517,492	$519,045	$520,602	$522,164	
Total Commercial Medium Revenue		**$526,678**	**$531,945**	**$533,707**	**$535,475**	**$537,251**	**$539,033**	**$540,823**	**$542,619**	**$544,423**	**$546,234**	**$548,052**	
Commercial High													
Fixed Charge	***Monthly***												
Commercial-High - CWCH	$14.99	192	194	196	198	200	202	204	206	208	210	212	As Commercial High
		192	194	196	198	200	202	204	206	208	210	212	
Total Fixed Charge Revenue		$34,519	$34,864	$35,213	$35,565	$35,921	$36,280	$36,643	$37,009	$37,379	$37,753	$38,130	
Winter Water Adjusted Volume		141,019	142,429	142,856	143,285	143,715	144,146	144,578	145,012	145,447	145,883	146,321	As Commercial Vol. High
Volume Charge	***$ / 1,000 gal***												
Commercial-High - CWCH	$7.24	170,898	172,607	173,125	173,645	174,165	174,688	175,212	175,738	176,265	176,794	177,324	As Commercial Vol. High
		170,898	172,607	173,125	173,645	174,165	174,688	175,212	175,738	176,265	176,794	177,324	
Total Volume Charge Revenue		$1,237,304	$1,249,677	$1,253,426	$1,257,187	$1,260,958	$1,264,741	$1,268,535	$1,272,341	$1,276,158	$1,279,986	$1,283,826	
Total Commercial High Revenue		**$1,271,823**	**$1,284,541**	**$1,288,639**	**$1,292,752**	**$1,296,879**	**$1,301,021**	**$1,305,178**	**$1,309,350**	**$1,313,537**	**$1,317,739**	**$1,321,957**	

City of Coeur D'Alene
Rate and Capitalization Fee Study
Revenue Requirement
Exhibit 6 - Customer Forecast

Effective 4/1/2022		FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Commercial Fernan												
Fixed Charge	***Monthly***											
Fernan-Commercial - SENRO6	$14.99	3	3	3	3	3	3	3	3	3	3	3
Fernan-Commercial - SENRF	$14.99	1	1	1	1	1	1	1	1	1	1	1
		4	4	4	4	4	4	4	4	4	4	4
Total Fixed Charge Revenue		$727	$734	$741	$749	$756	$764	$771	$779	$787	$795	$803
Winter Water Adjusted Volume		466	471	472	474	475	476	478	479	481	482	484
Volume Charge	***$ / 1,000 gal***											
Fernan-Commercial - SENRO6	$4.86	674	681	683	685	687	689	691	693	695	697	699
Fernan-Commercial - SENRF	$4.86	0	0	0	0	0	0	0	0	0	0	0
		674	681	683	685	687	689	691	693	695	697	699
Total Volume Charge Revenue		$3,276	$3,308	$3,318	$3,328	$3,338	$3,348	$3,358	$3,368	$3,379	$3,389	$3,399
Total Commercial Fernan Revenue		**$4,002**	**$4,042**	**$4,060**	**$4,077**	**$4,095**	**$4,112**	**$4,130**	**$4,148**	**$4,166**	**$4,184**	**$4,202**

City of Coeur D'Alene
Rate and Capitalization Fee Study
Revenue Requirement
Exhibit 6 - Customer Forecast

Effective 4/1/2022	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Summary											
Customers											
Residential	13,528	13,664	13,800	13,938	14,078	14,218	14,360	14,504	14,649	14,796	14,944
Residential Low	2,832	2,860	2,889	2,918	2,947	2,977	3,006	3,036	3,067	3,097	3,128
Residential Fernan	65	65	66	67	67	68	69	69	70	71	71
Commercial Low	1,660	1,677	1,694	1,711	1,728	1,745	1,763	1,780	1,798	1,816	1,834
Commercial Medium	130	132	133	134	136	137	138	140	141	142	144
Commercial High	192	194	196	198	200	202	204	206	208	210	212
Commercial Fernan	4	4	4	4	4	4	4	4	4	4	4
Total Number of Customers	**18,412**	**18,596**	**18,782**	**18,969**	**19,159**	**19,351**	**19,544**	**19,740**	**19,937**	**20,136**	**20,338**
		184	186	188	190	192	194	195	197	199	201
Volume											
Residential	751,551	759,067	761,344	763,628	765,919	768,217	770,521	772,833	775,151	777,477	779,809
Residential Low	84,372	85,216	85,472	85,728	85,985	86,243	86,502	86,762	87,022	87,283	87,545
Residential Fernan	3,605	3,641	3,652	3,663	3,674	3,685	3,696	3,707	3,718	3,729	3,741
Commercial Low	596,058	602,019	603,825	605,637	607,453	609,276	611,104	612,937	614,776	616,620	618,470
Commercial Medium	78,143	78,925	79,161	79,399	79,637	79,876	80,116	80,356	80,597	80,839	81,081
Commercial High	170,898	172,607	173,125	173,645	174,165	174,688	175,212	175,738	176,265	176,794	177,324
Commercial Fernan	674	681	683	685	687	689	691	693	695	697	699
Total Consumption	**1,685,303**	**1,702,156**	**1,707,262**	**1,712,384**	**1,717,521**	**1,722,674**	**1,727,842**	**1,733,025**	**1,738,224**	**1,743,439**	**1,748,669**
Revenues											
Residential	$7,881,999	$7,959,739	$8,038,257	$8,117,559	$8,197,655	$8,278,551	$8,360,257	$8,442,779	$8,526,127	$8,610,308	$8,695,332
Residential Low	$721,491	$728,705	$735,992	$743,352	$750,786	$758,294	$765,877	$773,535	$781,271	$789,084	$796,974
Residential Fernan	30,376	30,679	30,986	31,296	31,609	31,925	32,244	32,567	32,892	33,221	33,554
Commercial Low	3,642,568	3,678,993	3,692,142	3,705,351	3,718,621	3,731,953	3,745,346	3,758,802	3,772,320	3,785,901	3,799,545
Commercial Medium	526,678	531,945	533,707	535,475	537,251	539,033	540,823	542,619	544,423	546,234	548,052
Commercial High	1,271,823	1,284,541	1,288,639	1,292,752	1,296,879	1,301,021	1,305,178	1,309,350	1,313,537	1,317,739	1,321,957
Commercial Fernan	4,002	4,042	4,060	4,077	4,095	4,112	4,130	4,148	4,166	4,184	4,202
Total Revenues	**$14,078,937**	**$14,218,647**	**$14,323,783**	**$14,429,863**	**$14,536,895**	**$14,644,889**	**$14,753,854**	**$14,863,800**	**$14,974,736**	**$15,086,671**	**$15,199,615**
		1.0%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%

City of Coeur D'Alene
Rate and Capitalization Fee Study
Development of Distribution Factors
Exhibit 7 - Volume Distribution Factor

	FY 2023 Annual Flow (1,000 gal)	**8.0% Inflow and Infiltration** [1]	**Total Annual Flow at Plant** (1,000 gal)	**Avg. Daily Flow At Plant** (MGD)	**% of Total**
Residential	759,067	60,725	819,792	2.25	51.8%
Residential Low	85,216	6,817	92,033	0.25	5.8%
Residential Fernan	3,641	291	3,932	0.01	0.2%
Commercial Low	416,337	33,307	449,644	1.23	28.4%
Commercial Medium	58,189	4,655	62,844	0.17	4.0%
Commercial High	142,429	11,394	153,823	0.42	9.7%
Commercial Fernan	471	38	508	0.00	0.0%
Total	**1,465,349**	**117,228**	**1,582,577**	**4.34**	**100.0%**
		Actual Flows [2]	1,781,200	4.88	
					(VOL)

Notes

[1] - Estimated
[2] - City of Coeur D'Alene 2021 Progress Report by HDR Page 5

City of Coeur D'Alene
Rate and Capitalization Fee Study
Development of Distribution Factors
Exhibit 8 - Customer Distribution Factor

	Actual Customer		*Customer Service & Accounting*	
	Number of Accounts [1]	**% of Total**	**Living Units**	**% of Total**
Residential	12,942	72.4%	13,664	73.5%
Residential Low	2,860	16.0%	2,860	15.4%
Residential Fernan	65	0.4%	65	0.4%
Commercial Low	1,677	9.4%	1,677	9.0%
Commercial Medium	132	0.7%	132	0.7%
Commercial High	194	1.1%	194	1.0%
Commercial Fernan	4	0.0%	4	0.0%
Total	**17,874**	**100.0%**	**18,596**	**100.0%**
		(AC)		***(WCA)***

Notes

[1] - Based on FY 2021 Billing Data

City of Coeur D'Alene
Rate and Capitalization Fee Study
Development of Distribution Factors
Exhibit 9 - Strength Distribution Factor

	Biological Oxygen Demand				Total Suspended Solids		
	Daily Flow (MGD)	**Avg. Factor** (mg/l)	**Calculated Pounds** [2]	**% of Total**	**Avg. Factor** (mg/l) [1]	**Calculated Pounds** [2]	**% of Total**
Residential	2.25	260	1,777,637	49.8%	320	2,187,861	50.0%
Residential Low	0.25	260	199,565	5.6%	320	245,619	5.6%
Residential Fernan	0.01	260	8,527	0.2%	320	10,495	0.2%
Commercial Low	1.23	260	975,008	27.3%	320	1,200,009	27.4%
Commercial Medium	0.17	305	159,855	4.5%	350	183,440	4.2%
Commercial High	0.42	350	449,010	12.6%	425	545,227	12.5%
Commercial Fernan	0.00	260	1,103	0.0%	320	1,357	0.0%
Total	**4.34**	**270**	**3,570,705**	**100.0%**	**331**	**4,374,008**	**100.0%**
Influent Totals at WWTP - 2021	4.88	***272***	4,040,617	***(BOD)***	***334***	4,961,639	***(TSS)***

City of Coeur D'Alene
Rate and Capitalization Fee Study
Development of Distribution Factors
Exhibit 9 - Strength Distribution Factor - Continued

	Ammonia			*Phosphorus*		
	Avg. Factor (mg/l) [1]	**Calculated Pounds** [2]	**% of Total**	**Avg. Factor** (mg/l) [1]	**Calculated Pounds** [2]	**% of Total**
Residential	36	246,134	49.8%	7	47,859	49.7%
Residential Low	36	27,632	5.6%	7	5,373	5.6%
Residential Fernan	36	1,181	0.2%	7	230	0.2%
Commercial Low	36	135,001	27.3%	7	26,250	27.3%
Commercial Medium	38	19,916	4.0%	7	3,669	3.8%
Commercial High	50	64,144	13.0%	10	12,829	13.3%
Commercial Fernan	36	153	0.0%	7	30	0.0%
	37	**494,162**	**100.0%**	**7**	**96,240**	**100.0%**
Influent Totals at WWTP - 2021	*36*	534,787	***(A)***	*6.9*	102,501	***(P)***

Notes

[1] - Calculated Pounds = Daily Flow * Factor * 8.34 (Lbs. / MGD)

[2] - City of Coeur D'Alene 2021 Progress Report by HDR Page 5

City of Coeur D'Alene
Rate and Capitalization Fee Study
Development of Distribution Factors
Exhibit 10 - Revenue Related Distribution Factor

	Projected FY 2023	% of Total
Residential	$7,959,739	56.0%
Residential Low	728,705	5.1%
Residential Fernan	30,679	0.2%
Commercial Low	3,678,993	25.9%
Commercial Medium	531,945	3.7%
Commercial High	1,284,541	9.0%
Commercial Fernan	4,042	0.0%
Total	**$14,218,647**	**100.0%**

(RR)

City of Coeur D'Alene
Rate and Capitalization Fee Study
Functionalization and Classification
Exhibit 11 - Plant In Service

	As of 2022	Volume (VOL)	Strength Related: Bio-oxygen Demand (BOD)	Strength Related: Suspended Solids (TSS)	Strength Related: Ammonia (A)	Strength Related: Phosphorus (P)	Weighted for: Actual Customer (AC)	Weighted for: Customer Acct/Svcs (WCA)	Weighted for: Revenue Related (RR)	Weighted for: Direct Assignment (DA)	Basis of Classification
Land & Buildings											
Land	$1,528,020	$704,304	$22,050	$253,115	$192,042	$316,426	$40,084	$0	$0	$0	as Plant less Land
Land Improvements	213,313	98,322	3,078	35,335	26,809	44,173	5,596	0	0	0	as Plant less Land
Admin Building	1,798,047	828,766	25,946	297,845	225,979	372,343	47,167	0	0	0	as Plant less Land
Storage/Maintenance Buildings	422,217	194,611	6,093	69,940	53,064	87,434	11,076	0	0	0	as Plant less Land
WWTP Buildings	26,118,560	7,649,285	519,685	5,965,617	4,526,203	7,457,770	0	0	0	0	as Treatment
Total Land & Buildings	$30,080,157	$9,475,287	$576,851	$6,621,852	$5,024,098	$8,278,146	$103,923	$0	$0	$0	
Collection											
Pump/Lift Station	$2,327,495	$2,327,495	$0	$0	$0	$0	$0	$0	$0	$0	100% (VOL)
Sewer Line	49,106,736	44,196,062	0	0	0	0	4,910,674	0	0	0	90% (VOL)/ 10% (AC)
Total Collection	$51,434,230	$46,523,557	$0	$0	$0	$0	$4,910,674	$0	$0	$0	
Wastewater Treatment											
Agitator	$6,130	$6,130	$0	$0	$0	$0	$0	$0	$0	$0	100% (VOL)
Biofilter Media	99,371	99,371	0	0	0	0	0	0	0	0	100% (VOL)
Boiler	358,752	0	0	358,752	0	0	0	0	0	0	100% (TSS)
Chemical System	2,618,747	2,240,183	126,440	126,062	0	126,062	0	0	0	0	86% (VOL)/ 5% (BOD)/ 5% (TSS)/ 5% (P)
Primary Clarifier	1,319,561	329,890	240,133	419,647	0	329,890	0	0	0	0	25% (VOL)/ 18% (BOD)/ 32% (TSS)/ 25% (P)
Secondary Clarifier	1,386,127	693,064	0	346,532	0	346,532	0	0	0	0	50% (VOL)/ 25% (TSS)/ 25% (P)
Compost Building	3,470,871	448,200	168,075	2,048,372	168,075	638,149	0	0	0	0	13% (VOL)/ 5% (BOD)/ 59% (TSS)/ 5% (A)/ 18% (P)
Compost Equipment	390,133	0	0	312,107	0	78,027	0	0	0	0	80% (TSS)/ 20% (P)
Digester	3,215,935	0	0	2,572,748	0	643,187	0	0	0	0	80% (TSS)/ 20% (P)
Foul Air Duct	55,514	0	55,514	0	0	0	0	0	0	0	100% (BOD)
Grit Removal	1,536,774	1,536,774	0	0	0	0	0	0	0	0	100% (VOL)
Polymer System	315,563	264,942	5,719	33,463	5,719	5,719	0	0	0	0	84% (VOL)/ 2% (BOD)/ 11% (TSS)/ 2% (A)/ 2% (P)
SCADA/Telemetry	719,979	287,992	107,997	107,997	107,997	107,997	0	0	0	0	40% (VOL)/ 15% (BOD)/ 15% (TSS)/ 15% (A)/ 15% (P)
Screening Building	2,419,527	2,419,527	0	0	0	0	0	0	0	0	100% (VOL)
Sludge Grinder	25,537	0	0	20,430	0	5,107	0	0	0	0	80% (TSS)/ 20% (P)
Sludge Heat Exchanger	53,727	0	0	42,982	0	10,745	0	0	0	0	80% (TSS)/ 20% (P)
Sludge Pump	1,048,385	0	0	838,708	0	209,677	0	0	0	0	80% (TSS)/ 20% (P)
Sludge Storage	163,406	0	0	130,725	0	32,681	0	0	0	0	80% (TSS)/ 20% (P)
Sludge Thickening	508,911	0	0	407,129	0	101,782	0	0	0	0	80% (TSS)/ 20% (P)
Solids Handling	6,673,154	0	542,285	4,145,496	1,084,570	900,803	0	0	0	0	8% (BOD)/ 62% (TSS)/ 16% (A)/ 13% (P)
Treatment Plant Pumping	8,272,963	8,272,963	0	0	0	0	0	0	0	0	100% (VOL)
Trickle Filter	2,780,011	926,670	926,670	0	926,670	0	0	0	0	0	33% (VOL)/ 33% (BOD)/ 33% (A)

City of Coeur D'Alene
Rate and Capitalization Fee Study
Functionalization and Classification
Exhibit 11 - Plant In Service

	As of 2022	Volume (VOL)	Bio-oxygen Demand (BOD)	Suspended Solids (TSS)	Ammonia (A)	Phosphorus (P)	Actual Customer (AC)	Customer Acct/Svcs (WCA)	Revenue Related (RR)	Direct Assignment (DA)	Basis of Classification
				Strength Related			***Weighted for***				
WWTP Phase 4A	1,816,384	1,814,308	0	2,076	0	0	0	0	0	0	100% (VOL)/ 0% (TSS)
WWTP Phase 4B	14,252,867	12,771,566	0	1,481,301	0	0	0	0	0	0	90% (VOL)/ 10% (TSS)
WWTP Phase 4C	309,736	0	0	0	154,868	154,868	0	0	0	0	50% (A)/ 50% (P)
WWTP Phase 5A	3,627,726	0	8,794	108,098	2,452,151	1,058,683	0	0	0	0	0% (BOD)/ 3% (TSS)/ 68% (A)/ 29% (P)
WWTP Phase 5B	14,426,183	0	0	11,540,947	0	2,885,237	0	0	0	0	80% (TSS)/ 20% (P)
WWTP Phase 5C1	12,946,861	0	0	0	5,178,744	7,768,117	0	0	0	0	40% (A)/ 60% (P)
WWTP Phase 5C2	22,305,342	0	0	0	8,922,137	13,383,205	0	0	0	0	40% (A)/ 60% (P)
WWTP Phosphorus	2,521,138	0	0	0	0	2,521,138	0	0	0	0	100% (P)
Total Wastewater Treatment	$109,645,315	$32,111,580	$2,181,628	$25,043,570	$19,000,931	$31,307,607	$0	$0	$0	$0	
Plant Before General Plant	**$191,159,702**	**$88,110,424**	**$2,758,479**	**$31,665,421**	**$24,025,029**	**$39,585,753**	**$5,014,596**	**$0**	**$0**	**$0**	
General Plant											
Equipment	$1,792,627	$826,268	$25,868	$296,947	$225,298	$371,221	$47,025	$0	$0	$0	as Plant Before General
Vehicles	1,458,016	672,037	21,040	241,519	183,244	301,929	38,247	0	0	0	as Plant Before General
SOFTWARE	64,810	29,873	935	10,736	8,145	13,421	1,700	0	0	0	as Plant Before General
TECHNOLOGY	107,253	49,436	1,548	17,766	13,480	22,210	2,814	0	0	0	as Plant Before General
NPDES Permit	237,371	109,410	3,425	39,320	29,833	49,155	6,227	0	0	0	as Plant Before General
Plannning Documents	3,030,556	1,396,861	43,732	502,009	380,882	627,574	79,499	0	0	0	as Plant Before General
Generator	458,194	211,194	6,612	75,899	57,586	94,884	12,020	0	0	0	as Plant Before General
Misc. Plant	$7,148,828	$3,295,079	$103,159	$1,184,197	$898,468	$1,480,394	$187,532	$0	$0	$0	100% (VOL)
Plant in Service	**$198,308,530**	**$91,405,502**	**$2,861,638**	**$32,849,618**	**$24,923,497**	**$41,066,147**	**$5,202,128**	**$0**	**$0**	**$0**	
Accumulated Depreciation											
Total Land & Buildings	$20,427,824	$6,279,945	$396,784	$4,554,807	$3,455,801	$5,694,081	$46,405	$0	$0	$0	
Total Collection	16,660,552	15,162,507	0	0	0	0	1,498,045	0	0	0	
Total Wastewater Treatment	39,487,737	16,850,245	1,270,711	11,014,418	3,831,961	6,520,402	0	0	0	0	
Total General Plant	4,165,425	1,919,951	60,108	689,999	523,512	862,585	109,269	0	0	0	
Accumulated Depreciation of Plant in Service	**$80,741,537**	**$40,212,649**	**$1,727,603**	**$16,259,224**	**$7,811,274**	**$13,077,068**	**$1,653,720**	**$0**	**$0**	**$0**	
Net Plant In Service	**$117,566,993**	**$51,192,854**	**$1,134,035**	**$16,590,394**	**$17,112,222**	**$27,989,079**	**$3,548,408**	**$0**	**$0**	**$0**	

City of Coeur D'Alene
Rate and Capitalization Fee Study
Functionalization and Classification
Exhibit 12 - Expenses

	Test Year FY 2023	Volume (VOL)	Bio-oxygen Demand (BOD)	Suspended Solids (TSS)	Ammonia (A)	Phosphorus (P)	Actual Customer (AC)	Customer Acct/Svcs (WCA)	Revenue Related (RR)	Assignment (DA)	Basis of Classification
				Strength Related			Weighted for				
Wastewater Personnel Costs											
Administrative	$929,170	$0	$0	$0	$0	$0	$929,170	$0	$0	$0	100% (AC)
Collection	842,809	762,342	0	0	0	0	80,467	0	0	0	as Collection
Treatment	1,609,049	471,238	32,015	367,515	278,839	459,440	0	0	0	0	as Treatment
Sludge Management	205,596	0	0	164,477	0	41,119	0	0	0	0	as Sludge Mangement
Total Wastewater Personnel Costs	**$3,586,624**	**$1,233,580**	**$32,015**	**$531,992**	**$278,839**	**$500,559**	**$1,009,637**	**$0**	**$0**	**$0**	
Adminstration											
Office Supplies	$27,500	$0	$0	$0	$0	$0	$27,500	$0	$0	$0	100% (AC)
Minor Equipment	0	0	0	0	0	0	0	0	0	0	100% (AC)
Fuels/Lubes	500	0	0	0	0	0	500	0	0	0	100% (AC)
COVID-19	0	0	0	0	0	0	0	0	0	0	100% (AC)
Professional Services	200,000	92,185	2,886	33,130	25,136	41,416	5,246	0	0	0	as Plant Before General
PLC Programming Support	0	0	0	0	0	0	0	0	0	0	100% (AC)
Annual Maint-computer software	50,000	0	0	0	0	0	50,000	0	0	0	100% (AC)
Travel/Meetings	8,000	0	0	0	0	0	8,000	0	0	0	100% (AC)
Dues/Subscriptions	4,000	0	0	0	0	0	4,000	0	0	0	100% (AC)
Training	10,000	0	0	0	0	0	10,000	0	0	0	100% (AC)
Public Education	9,000	0	0	0	0	0	9,000	0	0	0	100% (AC)
Communications	11,000	0	0	0	0	0	11,000	0	0	0	100% (AC)
Utilities	0	0	0	0	0	0	0	0	0	0	100% (AC)
R/M Auto	1,000	0	0	0	0	0	1,000	0	0	0	100% (AC)
Bad Debt Expense	0	0	0	0	0	0	0	0	0	0	100% (AC)
Public Art Fee	0	0	0	0	0	0	0	0	0	0	100% (AC)
Interfund Overhead Transfer	851,148	0	0	0	0	0	851,148	0	0	0	100% (AC)
Total Adminstration	**$1,172,148**	**$92,185**	**$2,886**	**$33,130**	**$25,136**	**$41,416**	**$977,394**	**$0**	**$0**	**$0**	

City of Coeur D'Alene
Rate and Capitalization Fee Study
Functionalization and Classification
Exhibit 12 - Expenses

				Strength Related				Weighted for				
	Test Year	Volume	Bio-oxygen Demand	Suspended Solids	Ammonia	Phosphorus	Actual Customer	Customer Acct/Svcs	Revenue Related	Assignment	
	FY 2023	(VOL)	(BOD)	(TSS)	(A)	(P)	(AC)	(WCA)	(RR)	(DA)	Basis of Classification
Treatment											
Operating Supplies - Plant	$1,500,000	$439,302	$29,846	$342,608	$259,942	$428,303	$0	$0	$0	$0	as Treatment
Lab Supplies - Plant	34,000	9,958	677	7,766	5,892	9,708	0	0	0	0	as Treatment
Pretreatment	35,000	10,250	696	7,994	6,065	9,994	0	0	0	0	as Treatment
Surface Water Tests (Permit Required)	11,000	3,222	219	2,512	1,906	3,141	0	0	0	0	as Treatment
Minor Equipment/Replacement/Plant	0	0	0	0	0	0	0	0	0	0	as Treatment
Fuels - Plant	11,000	3,222	219	2,512	1,906	3,141	0	0	0	0	as Treatment
Professional Services	0	0	0	0	0	0	0	0	0	0	as Treatment
Contract Services	2,000	586	40	457	347	571	0	0	0	0	as Treatment
Utilities - Plant	600,000	600,000	0	0	0	0	0	0	0	0	100% (VOL)
Solid Waste Fees	1,500	1,500	0	0	0	0	0	0	0	0	100% (VOL)
Rental Equip/Plant	4,000	1,171	80	914	693	1,142	0	0	0	0	as Treatment
R/M Grounds/Plant	20,000	5,857	398	4,568	3,466	5,711	0	0	0	0	as Treatment
R/M Buildings -Plant	35,000	10,250	696	7,994	6,065	9,994	0	0	0	0	as Treatment
R/M Auto	8,000	2,343	159	1,827	1,386	2,284	0	0	0	0	as Treatment
R/M Other/Plant	210,000	61,502	4,178	47,965	36,392	59,962	0	0	0	0	as Treatment
Interest Loader Lease Payments	17,000	4,979	338	3,883	2,946	4,854	0	0	0	0	as Treatment
Protective Clothing	8,000	2,343	159	1,827	1,386	2,284	0	0	0	0	as Treatment
Safety	10,000	2,929	199	2,284	1,733	2,855	0	0	0	0	as Treatment
Total Treatment	**$2,506,500**	**$1,159,413**	**$37,904**	**$435,112**	**$330,126**	**$543,945**	**$0**	**$0**	**$0**	**$0**	
Collection											
Operating Supplies/Collection	$8,000	$7,236	$0	$0	$0	$0	$764	$0	$0	$0	as Collection
Collection Odor Control	30,000	27,136	0	0	0	0	2,864	0	0	0	as Collection
Fuels/Collection	34,000	30,754	0	0	0	0	3,246	0	0	0	as Collection
Compound Water Meter Change-Out	15,000	13,568	0	0	0	0	1,432	0	0	0	as Collection
Leases - Burlington Northern	0	0	0	0	0	0	0	0	0	0	as Collection
Sewer Backup Claims	0	0	0	0	0	0	0	0	0	0	as Collection
Utilities/Collection	28,000	25,327	0	0	0	0	2,673	0	0	0	as Collection
R/M Auto/Collection	15,000	13,568	0	0	0	0	1,432	0	0	0	as Collection
R/M Other/Collection	23,000	20,804	0	0	0	0	2,196	0	0	0	as Collection
Total Collection	**$153,000**	**$138,392**	**$0**	**$0**	**$0**	**$0**	**$14,608**	**$0**	**$0**	**$0**	

City of Coeur D'Alene
Rate and Capitalization Fee Study
Functionalization and Classification
Exhibit 12 - Expenses

	Test Year FY 2023	Volume (VOL)	Strength Related: Bio-oxygen Demand (BOD)	Strength Related: Suspended Solids (TSS)	Strength Related: Ammonia (A)	Strength Related: Phosphorus (P)	Weighted for: Actual Customer (AC)	Weighted for: Customer Acct/Svcs (WCA)	Weighted for: Revenue Related (RR)	Weighted for: Assignment (DA)	Basis of Classification
Sludge Management											
Operating Supplies, Compost	$85,000	$0	$0	$68,000	$0	$17,000	$0	$0	$0	$0	as Sludge Mangement
Lab Reports for Compost	3,500	0	0	2,800	0	700	0	0	0	0	as Sludge Mangement
Minor Equip/Replacement/Compost	0	0	0	0	0	0	0	0	0	0	as Sludge Mangement
Fuels, Compost	15,200	0	0	12,160	0	3,040	0	0	0	0	as Sludge Mangement
Utilities, Compost	23,000	0	0	18,400	0	4,600	0	0	0	0	as Sludge Mangement
R/M Grounds, Compost	3,000	0	0	2,400	0	600	0	0	0	0	as Sludge Mangement
R/M Buildings, Compost	3,000	0	0	2,400	0	600	0	0	0	0	as Sludge Mangement
R/M Auto, Compost	1,000	0	0	800	0	200	0	0	0	0	as Sludge Mangement
R/M Other, Compost	12,000	0	0	9,600	0	2,400	0	0	0	0	as Sludge Mangement
Total Sludge Management	**$145,700**	**$0**	**$0**	**$116,560**	**$0**	**$29,140**	**$0**	**$0**	**$0**	**$0**	
Additional O&M	**$0**	$0	$0	$0	$0	$0	$0	$0	$0	$0	as Plant Before General
Total O&M Expenses	**$7,563,972**	**$2,623,571**	**$72,806**	**$1,116,794**	**$634,101**	**$1,115,061**	**$2,001,639**	**$0**	**$0**	**$0**	
Rate Funded Capital	**$4,600,000**	**$2,120,258**	**$66,379**	**$761,986**	**$578,130**	**$952,578**	**$120,669**	**$0**	**$0**	**$0**	as Plant Before General
Debt Service											
2021A Sewer Revenue Bonds	$874,600	$403,126	$12,621	$144,877	$109,920	$181,114	$22,943	$0	$0	$0	as Plant Before General
2021B Sewer Revenue Bonds	1,994,000	919,086	28,774	330,304	250,607	412,922	52,308	0	0	0	as Plant Before General
2020 Sewer Revenue Bonds	0	0	0	0	0	0	0	0	0	0	as Plant Before General
2013 Sewer Revenue Bonds	644,841	188,853	12,830	147,285	111,747	184,125	0	0	0	0	as Treatment
2015 Sewer Revenue Bonds	0	0	0	0	0	0	0	0	0	0	as Plant Before General
2012D Sewer Revenue Bonds	0	0	0	0	0	0	0	0	0	0	as Plant Before General
Additional Low Interest Loan	0	0	0	0	0	0	0	0	0	0	as Plant Before General
Additional Revenue Bond	0	0	0	0	0	0	0	0	0	0	as Plant Before General
Total Debt Service	$3,513,441	$1,511,065	$54,225	$622,466	$472,274	$778,161	$75,251	$0	$0	$0	
Less Cap. Fee Revenue for Debt Service	$500,000	$215,041	$7,717	$88,584	$67,210	$110,741	$10,709	$0	$0	$0	as Debt Service
Net Debt Service	**$3,013,441**	**$1,296,024**	**$46,508**	**$533,882**	**$405,065**	**$667,420**	**$64,542**	**$0**	**$0**	**$0**	

City of Coeur D'Alene
Rate and Capitalization Fee Study
Functionalization and Classification
Exhibit 12 - Expenses

	Test Year FY 2023	Volume (VOL)	Strength Related: Bio-oxygen Demand (BOD)	Strength Related: Suspended Solids (TSS)	Strength Related: Ammonia (A)	Strength Related: Phosphorus (P)	Weighted for: Actual Customer (AC)	Weighted for: Customer Acct/Svcs (WCA)	Weighted for: Revenue Related (RR)	Weighted for: Assignment (DA)	Basis of Classification
Transfers											
In											
Transfer from Operating Reserve Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	as O&M
Out											
Transfer to Operating Reserve Fund	0	0	0	0	0	0	0	0	0	0	as O&M
Transfer to Capital Reserve Fund	0	0	0	0	0	0	0	0	0	0	as Plant less Land
Transfer Out	0	0	0	0	0	0	0	0	0	0	as O&M
Bal. / (Def.) After Rate Adj.	(545,073)	(251,238)	(7,866)	(90,291)	(68,505)	(112,875)	(14,299)	0	0	0	as Plant less Land
Total Transfers	**($545,073)**	**($251,238)**	**($7,866)**	**($90,291)**	**($68,505)**	**($112,875)**	**($14,299)**	**$0**	**$0**	**$0**	
Total Revenue Requirement	**$14,632,340**	**$5,788,615**	**$177,827**	**$2,322,371**	**$1,548,791**	**$2,622,183**	**$2,172,552**	**$0**	**$0**	**$0**	
Less: Non-Operating Revenue											
Hookup fees	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	as Total Revenue Requirement
Huetter Interceptor Fees	19,000	7,516	231	3,016	2,011	3,405	2,821	0	0	0	as Total Revenue Requirement
Surplus Sales	0	0	0	0	0	0	0	0	0	0	as Total Revenue Requirement
Compost Sales	25,000	2,902	1,088	15,284	1,088	4,637	0	0	0	0	as Compost
Interest Earnings - Operating Fund	41,500	16,418	504	6,587	4,393	7,437	6,162	0	0	0	as Total Revenue Requirement
Total Other Revenues	**$85,500**	**$26,836**	**$1,824**	**$24,886**	**$7,492**	**$15,479**	**$8,983**	**$0**	**$0**	**$0**	
Net Revenue Requirement	**$14,546,840**	**$5,761,779**	**$176,004**	**$2,297,485**	**$1,541,299**	**$2,606,704**	**$2,163,569**	**$0**	**$0**	**$0**	

City of Coeur D'Alene
Rate and Capitalization Fee Study
Exhibit 13 - Allocation by Component

	FY 2023	Residential	Commercial	*Basis of Allocation*
Volume Related	**$5,761,779**	$3,334,052	$2,427,727	*(VOL)*
Strength Related				
Bio-oxygen Demand	$176,004	$97,879	$78,125	*(BOD)*
Suspended Solids	2,297,485	$1,283,718	$1,013,766	*(TSS)*
Ammonia	1,541,299	$857,565	$683,734	*(A)*
Phosphorus	2,606,704	$1,448,049	$1,158,656	*(P)*
Total Strength Related	**$6,621,492**	$3,687,211	$2,934,281	
Customer Related				
Actual Customer	$2,163,569	$1,920,693	$242,876	*(AC)*
Weighted Customer	0	$0	$0	*(WCA)*
Total Customer Related	**$2,163,569**	$1,920,693	$242,876	
Revenue Related	$0	$0	$0	*(RR)*
Direct Assignment	$0	$0	$0	*(DA)*
Total Revenue Requirements	**$14,546,840**	**$8,941,956**	**$5,604,884**	

City of Coeur D'Alene
Rate and Capitalization Fee Study
Exhibit 14 - Summary of Cost Allocation

	FY 2023	Residential	Commercial
Revenues at Present Rates	**$14,218,647**	$8,719,124	$5,499,523
Allocated Revenue Requirement	**$14,546,840**	$8,941,956	$5,604,884
Balance / (Deficiency) of Funds	**($328,193)**	**($222,832)**	**($105,361)**
Required % Change in Rates	**5.0%**	**5.5%**	**4.2%**

City of Coeur D'Alene
Rate and Capitalization Fee Study
Exhibit 15 - Average Unit Cost

	System Average	Residential	Commercial
Volume Charge			
Volume Costs - $ / CCF	$3.93	3.93	3.93
BOD Costs - $ / CCF	0.12	0.12	0.13
TSS Costs - $ / CCF	1.57	1.51	1.64
Ammonia Costs - $ / CCF	1.05	1.01	1.11
Phosphorus Costs - $ / CCF	1.78	1.71	1.88
Direct Assgn. - $ / CCF	0.00	0.00	0.00
Total	**$8.45**	**$8.28**	**$8.68**
Monthly Service Charge			
Actual Customer - $ / Dwelling Unit	$9.70	$9.65	$10.09
Weighted Customer - $ /Dwelling Unit	0.00	0.00	0.00
Revenue Related - $ / Dwelling Unit	0.00	0.00	0.00
Total $/Month	**$9.70**	**$9.65**	**$10.09**
	Current Rates Alloc per Unit		
Basic Data			
Annual Flow - CCF	1,464,878	847,924	617,425
Lbs. - BOD	3,569,603	1,985,729	1,584,976
Lbs. - TSS	4,372,651	2,443,975	1,930,034
Lbs. - Ammonia	494,009	274,947	219,214
Lbs. - Phosphorus	96,210	53,462	42,778
Number of Accounts	17,870	15,868	2,007
Number of Living Units	18,592	16,589	2,007

City of Coeur D'Alene
Rate and Capitalization Fee Study
Exhibit 16 - Strength Unit Costs

	System Average	Residential	Commercial
Strength Charge			
BOD Costs - $ / Lb	$0.0493	$0.05	$0.05
TSS Costs - $ / Lb	$0.5254	$0.53	$0.53
Ammonia Costs - $ / Lb	$3.1200	$3.12	$3.12
Phosphorus Costs - $ / Lb	$27.0940	$27.09	$27.09
Total Strength Related Unit Costs	**$30.79**	**$30.78**	**$30.78**

City of Coeur D'Alene
Rate and Capitalization Fee Study
Rate Design
Exhibit 17 - Rate Design Summary

	Current	FY 2023		FY 2024		FY 2025		FY 2026		FY 2027
Residential										
Fixed Charge ($/Month/Dwelling Unit)										
Residential - SERS	$14.99	$15.74	5.0%	$16.53	5.0%	$17.35	5.0%	$18.22	5.0%	$19.13
Residential - SERV	14.99	15.74	5.0%	16.53	5.0%	17.35	5.0%	18.22	5.0%	19.13
Residential Low - SERSL	14.99	15.74	5.0%	16.53	5.0%	17.35	5.0%	18.22	5.0%	19.13
Duplex - SERMF	14.99	15.74	5.0%	16.53	5.0%	17.35	5.0%	18.22	5.0%	19.13
Usage Charge ($/Month)										
Residential - SERS	$33.82	$33.18	-1.9%	$34.83	5.0%	$36.58	5.0%	$38.40	5.0%	$40.32
Residential - SERV	$0.00	$0.00		$0.00		$0.00		$0.00		$0.00
Residential Low - SERSL	$6.24	$17.72	184.0%	$18.61	5.0%	$19.54	5.0%	$20.52	5.0%	$21.54
Duplex - SERMF	67.64	66.35	-1.9%	$69.67	5.0%	$73.15	5.0%	$76.81	5.0%	$80.65
Fernan - Residential										
Fixed Charge ($/Month/Dwelling Unit)										
Fernan-Residential - SERF	$14.99	$15.74	5.0%	$16.53	5.0%	$17.35	5.0%	$18.22	5.0%	$19.13
Usage Charge ($/Month)										
Fernan-Residential - SERF	$24.17	$27.09	12.1%	$30.16	11.3%	$33.39	10.7%	$36.77	10.1%	$40.32
Commercial Low										
Fixed Charge ($/Month)										
Commercial-Low - CWCL	$14.99	$15.74	5.0%	$16.53	5.0%	$17.35	5.0%	$18.22	5.0%	$19.13
Commodity Charge ($/1,000 Gal)										
Commercial-Low - CWCL	$5.61	$5.89	5.0%	$6.19	5.0%	$6.49	5.0%	$6.82	5.0%	$7.16
Commercial Medium										
Fixed Charge ($/Month)										
Commercial-Medium - CWCM	$14.99	$15.74	5.0%	$16.53	5.0%	$17.35	5.0%	$18.22	5.0%	$19.13
Commodity Charge ($/1,000 Gal)										
Commercial-Medium - CWCM	$6.44	$6.76	5.0%	$7.10	5.0%	$7.46	5.0%	$7.83	5.0%	$8.22
Commercial High										
Fixed Charge ($/Month)										
Commercial-High - CWCH	$14.99	$15.74	5.0%	$16.53	5.0%	$17.35	5.0%	$18.22	5.0%	$19.13
Commodity Charge										
Commercial-High - CWCH	$7.24	$7.60	5.0%	$7.98	5.0%	$8.38	5.0%	$8.80	5.0%	$9.24
Fernan - Commercial										
Fixed Charge										
Fernan-Commercial - SENRO6	$14.99	$15.74	5.0%	$16.53	5.0%	$17.35	5.0%	$18.22	5.0%	$19.13
Commodity Charge ($/1,000 Gal)										
Fernan-Commercial - SENRO6	$4.86	$5.28	8.6%	$5.71	8.3%	$6.17	8.0%	$6.66	7.8%	$7.16

City of Coeur D'Alene
Rate and Capitalization Fee Study
Rate Design
Exhibit 18 - Residential

Usage (1,000 Gal)	Current Rate	Proposed Rate	$ Change	% Change
0	$48.81	$48.91	$0.10	0.2%
2	48.81	48.91	0.10	0.2%
4	48.81	48.91	0.10	0.2%
8	48.81	48.91	0.10	0.2%
12	48.81	48.91	0.10	0.2%
16	48.81	48.91	0.10	0.2%
20	48.81	48.91	0.10	0.2%
25	48.81	48.91	0.10	0.2%
30	48.81	48.91	0.10	0.2%
35	48.81	48.91	0.10	0.2%
40	48.81	48.91	0.10	0.2%
50	48.81	48.91	0.10	0.2%

Fixed Charges	Current	Proposed
Service Charage - $/Month	$14.99	$15.74
Usage Charge - $/Month	33.82	33.18
Total Fixed Charge	$48.81	$48.91
Commodity Charge - $/1,000 Gal		
Residential - SERS	$0.00	$0.00

City of Coeur D'Alene
Rate and Capitalization Fee Study
Print Revenue Requirement and Cost of Service
Exhibit 19 - Residential - Low Use

Usage (1,000 Gal)	Current Rate	Proposed Rate	$ Change	% Change
0	$21.23	$33.46	$12.23	57.6%
2	21.23	33.46	12.23	57.6%
4	21.23	33.46	12.23	57.6%
8	21.23	33.46	12.23	57.6%
12	21.23	33.46	12.23	57.6%
16	21.23	33.46	12.23	57.6%
20	21.23	33.46	12.23	57.6%
25	21.23	33.46	12.23	57.6%
30	21.23	33.46	12.23	57.6%
35	21.23	33.46	12.23	57.6%
40	21.23	33.46	12.23	57.6%
50	21.23	33.46	12.23	57.6%

Fixed Charges	Current	Proposed
Service Charage - $/Month	$14.99	$15.74
Usage Charge - $/Month	6.24	17.72
Total Fixed Charge	$21.23	$33.46
Commodity Charge - $/1,000 Gal		
Residential - SERS	$0.00	0

City of Coeur D'Alene
Rate and Capitalization Fee Study
Rate Design
Exhibit 20 - Fernan Residential

Usage (1,000 Gal)	Current Rate	Proposed Rate	$ Change	% Change
0	$39.16	$42.83	$3.67	9.4%
2	39.16	42.83	3.67	9.4%
4	39.16	42.83	3.67	9.4%
8	39.16	42.83	3.67	9.4%
12	39.16	42.83	3.67	9.4%
16	39.16	42.83	3.67	9.4%
20	39.16	42.83	3.67	9.4%
25	39.16	42.83	3.67	9.4%
30	39.16	42.83	3.67	9.4%
35	39.16	42.83	3.67	9.4%
40	39.16	42.83	3.67	9.4%
50	39.16	42.83	3.67	9.4%

Fixed Charges	**Current**	**Proposed**
Service Charage - $/Month	$14.99	$15.74
Usage Charge - $/Month	24.17	27.09
Total Fixed Charge	$39.16	$42.83
Commodity Charge - $/1,000 Gal		
Fernan Residential - SERF	$0.00	$0.00

City of Coeur D'Alene
Rate and Capitalization Fee Study
Rate Design
Exhibit 21 - Commercial - Low

Usage (1,000 Gal)	Current Rate	Proposed Rate	$ Change	% Change
0	$14.99	$15.74	$0.75	5.0%
2	26.21	27.52	1.31	5.0%
4	37.43	39.30	1.87	5.0%
8	59.87	62.86	2.99	5.0%
12	82.31	86.43	4.12	5.0%
16	104.75	109.99	5.24	5.0%
20	127.19	133.55	6.36	5.0%
25	155.24	163.00	7.76	5.0%
30	183.29	192.45	9.16	5.0%
35	211.34	221.91	10.57	5.0%
40	239.39	251.36	11.97	5.0%
50	295.49	310.26	14.77	5.0%

Fixed Charges	Current	Proposed
Monthly	$14.99	$15.74
Commodity Charge - $/1,000 Gal		
Commercial-Low - CWCL	$5.61	$5.89

City of Coeur D'Alene
Rate and Capitalization Fee Study
Rate Design
Exhibit 22 - Commercial - Medium

Usage (1,000 Gal)	Current Rate	Proposed Rate	$ Change	% Change
0	$14.99	$15.74	$0.75	5.0%
2	27.87	29.26	1.39	5.0%
4	40.75	42.79	2.04	5.0%
8	66.51	69.84	3.33	5.0%
12	92.27	96.88	4.61	5.0%
16	118.03	123.93	5.90	5.0%
20	143.79	150.98	7.19	5.0%
25	175.99	184.79	8.80	5.0%
30	208.19	218.60	10.41	5.0%
35	240.39	252.41	12.02	5.0%
40	272.59	286.22	13.63	5.0%
50	336.99	353.84	16.85	5.0%

Fixed Charges	**Current**	**Proposed**
Monthly	$14.99	$15.74
Commodity Charge - $/1,000 Gal		
Commercial-Medium - CWCM	$6.44	$6.76

City of Coeur D'Alene
Rate and Capitalization Fee Study
Rate Design
Exhibit 23 - Commercial - High

Usage (1,000 Gal)	Current Rate	Proposed Rate	$ Change	% Change
0	$14.99	$15.74	$0.75	5.0%
2	29.47	30.94	1.47	5.0%
4	43.95	46.15	2.20	5.0%
8	72.91	76.56	3.65	5.0%
12	101.87	106.96	5.09	5.0%
16	130.83	137.37	6.54	5.0%
20	159.79	167.78	7.99	5.0%
25	195.99	205.79	9.80	5.0%
30	232.19	243.80	11.61	5.0%
35	268.39	281.81	13.42	5.0%
40	304.59	319.82	15.23	5.0%
50	376.99	395.84	18.85	5.0%

Fixed Charges	Current	Proposed
Monthly	$14.99	$15.74
Commodity Charge - $/1,000 Gal		
Commercial-High - CWCH	$7.24	$7.60

City of Coeur D'Alene
Rate and Capitalization Fee Study
Rate Design
Exhibit 24 - Fernan Commercial

Usage (1,000 Gal)	Current Rate	Proposed Rate	$ Change	% Change
0	$14.99	$15.74	$0.75	5.0%
2	24.71	26.29	1.58	6.4%
4	34.43	36.85	2.42	7.0%
8	53.87	57.96	4.09	7.6%
12	73.31	79.06	5.75	7.8%
16	92.75	100.17	7.42	8.0%
20	112.19	121.28	9.09	8.1%
25	136.49	147.66	11.17	8.2%
30	160.79	174.05	13.26	8.2%
35	185.09	200.43	15.34	8.3%
40	209.39	226.82	17.43	8.3%
50	257.99	279.59	21.60	8.4%

Fixed Charges	Current	Proposed
Monthly	$14.99	$15.74
Commodity Charge - $/1,000 Gal		
Fernan-Commercial - SENRO6	$4.86	$5.28

City of Coeur D'Alene
Rate and Capitalization Fee Study
Capitalization Fee
Exhibit 25 - Development of Population Equivalents

Description	Value	Unit	
Residential Population Eqivalency Calculation			
Total Residential Plant Volume	2,323,079	Gallons/Day	Using 2022 Rate Study Numbers
Total Number of Residential Customers	15,868		Using 2022 Rate Study Numbers
Average Household Size*	2.27	pph	2021 Census Da https://www.ce
Average Daily Household Flow	64.49	gallons/PE	
Treatment Plant Capacity	5,000,000	MGD	
Total PE's	**77,527**	**PE**	

*People per Household from Census Bureau Quick Facts, July 1, 2021 Data retrieved 9/6/2022

	Original Cost	Accumulated Depreciation	Replacement Cost 2022	Replacement Cost Per PE	Accumulated Depreciation per PE	Net Replacement Cost
Eligible Costs						
Treatment	$131,376,021	$56,396,312	$255,201,349	3,285	(726)	2,559
Collection	22,611,847	6,616,237	58,806,319	757	(85)	672
Lift Stations	2,061,863	1,477,508	5,591,739	72	(19)	53
Compost	3,286,575	1,813,242	6,965,682	90	(23)	66
General Plant	0	0	0	0	0	0
Total	$198,308,530	$66,303,299	$326,565,089	4,203	(853)	3,350
Debt Service Credit (Outstanding Principal)			(32,133,077)	(414)	0	(413.59)
Total	**$198,308,530**	**$66,303,299**	**$294,432,012**	**$3,790**	**($853)**	**$2,936**

Replacement Cost	$326,565,089
Accumulated Deprecation	(66,303,299)
Outstanding Principal Balance	(32,133,077)
Net Replacement Costs	$228,128,713
Treatment Plant Capacity Per Day	5,000,000
Gallons per PE per Day	64.36
Capacity in PEs	77,693
Calculated Cap Fee	**$2,936**

City of Coeur D'Alene
Rate and Capitalization Fee Study
Capitalization Fee
Exhibit 26 - Treatment Calculation

Description	Year	Original Cost	Accumulated Depreciation	Net Book Value	Useful Life	2022	Percent CF Eligible	CF Eligible
Existing								
PRIMARY CONTROL & SLUDGE PUMPING	1972	$1,020,508	$1,020,508	$0	50	$7,571,927	100.0%	$7,571,927
WASTEWATER TREATMENT PLANT	1978	796,159	796,159	0	40	3,730,373	100.0%	3,730,373
WASTEWATER - MAINTENANCE SHOP - BUILDING	1983	47,248	46,067	1,181	40	151,143	100.0%	151,143
WASTEWATER - SECONDARY CONTROL BUILDING	1985	66,247	61,278	4,969	40	205,403	100.0%	205,403
SLUDGE DIGESTER #2	1986	134,327	96,715	37,612	50	406,792	100.0%	406,792
SLUDGE DIGESTER #3	1986	744,203	535,826	208,377	50	2,253,721	100.0%	2,253,721
SOLIDS CONTACT TANK #1	1986	971,671	699,603	272,068	50	2,942,578	100.0%	2,942,578
SOLIDS CONTACT TANK #2	1986	1,197,468	862,177	335,291	50	3,626,375	100.0%	3,626,375
TRICKLING FILTER #1	1986	1,059,013	762,489	296,524	50	3,207,082	100.0%	3,207,082
SLUDGE DIGESTER #4	1988	917,141	623,656	293,485	50	2,639,767	100.0%	2,639,767
SOLIDS CONTROL BUILDING WITH DEWATERING	1988	4,339,426	2,950,810	1,388,616	50	12,489,983	100.0%	12,489,983
WASTEWATER TREATMENT PLANT	1988	6,015,898	5,113,513	902,385	40	17,315,300	100.0%	17,315,300
PREARATION GRIT REMOVAL TANK	1990	1,489,918	953,548	536,370	50	4,095,336	100.0%	4,095,336
PRIMARY CLARIFIER #2	1990	794,600	508,544	286,056	50	2,184,116	100.0%	2,184,116
NEW SCREENING BUILDING	1990	2,419,527	1,548,497	871,030	50	6,650,551	100.0%	6,650,551
SECONDARY CLARIFIER #2	1990	581,504	372,163	209,341	50	1,598,379	100.0%	1,598,379
TRICKLING FILTER #2	1990	1,059,013	677,768	381,245	50	2,910,908	100.0%	2,910,908
WASTEWATER TREATMENT PLANT	1990	5,295,792	4,236,634	1,059,158	40	14,556,538	100.0%	14,556,538
FT SHERMAN ABN'D MILL;RES LOT 8 WW HARBOR CENTER	1990	350,209	0	350,209	NA	962,619	0.0%	0
FT SHERMAN ABAND MILL TAX #14000 HARBOR CENTER SI	1991	1,042,362	0	1,042,362	NA	2,804,103	0.0%	0
FT SHERMAN ABAND MILL,TAX #6967,16968,GOV'T LOTS 2	2000	60,315	0	60,315	NA	126,106	0.0%	0
SURVEY - STIMPSON LUMBER MILL	2003	5,338	0	5,338	NA	10,372	0.0%	0
Stimson property-Ptn Govt Lots 16&17 Fort Sherman	2004	69,796	0	69,796	NA	127,593	0.0%	0
WASTEWATER PARTS BUILDING	1992	13,369	10,027	3,342	40	34,882	100.0%	34,882
CENTRATE PUMP STATION	1994	187,600	187,600	0	15	451,199	100.0%	451,199
SOUTH COMPOST BED BIOFILTER	1995	560,250	302,535	257,715	50	1,331,947	100.0%	1,331,947
INFLANT PUMP STATION	1995	8,272,963	4,467,400	3,805,563	50	19,668,275	100.0%	19,668,275
SLUDGE STORAGE TANK	1995	155,756	84,108	71,648	50	370,297	100.0%	370,297
SECONDARY CONTROL PUMPING	1995	1,139,569	615,367	524,202	50	2,709,230	100.0%	2,709,230
WASTEWATER TREATMENT PLANT	1995	3,431,963	2,316,575	1,115,388	40	8,159,204	100.0%	8,159,204
WASTEWATER TREATMENT PLANT	1995	7,211,205	4,867,563	2,343,642	40	17,144,035	100.0%	17,144,035
GRAVITY SLUDGE THICKNER	1996	137,495	71,497	65,998	50	318,216	100.0%	318,216
GRAVITY SLUDGE THICKNER CONTROL BUILDING	1998	234,035	112,337	121,698	50	514,199	100.0%	514,199
BOILER #1- REFURBISH	2000	13,725	13,725	0	20	28,695	100.0%	28,695
CHEMICAL SYSTEM CENTER & GARAGE	2000	315,015	315,015	0	15	658,632	100.0%	658,632
DIGESTOR #3 GAS COMPRESSOR	2000	15,545	15,545	0	15	32,502	100.0%	32,502
DIGESTOR #3 GAS COMPRESSOR - PIPING	2000	15,545	15,545	0	15	32,502	100.0%	32,502
WWTP PAINTING DIGESTER #3	2000	15,951	15,951	0	20	33,350	100.0%	33,350
BOILER #1 REFURBISHMENT	2001	17,160	9,009	8,151	40	35,239	100.0%	35,239
NORTH COMPOST BED BIOFILTER	2001	560,250	235,305	324,945	50	1,150,471	100.0%	1,150,471
STAINLESS PIPING FOR DISGESTER #3 LOBE PUMP	2001	6,070	3,187	2,883	40	12,465	100.0%	12,465
WWTP PAINTING DIGESTER #3	2001	195,440	102,606	92,834	20	401,336	100.0%	401,336
WWTP PHASE 4A	2001	269,543	141,510	128,033	40	553,504	100.0%	553,504
DIGESTER #3 GAS COMPRESSOR/GAS MIXING SYSTEM	2002	15,023	15,023	0	20	29,886	100.0%	29,886
DIGESTER TANK PUMPING	2002	5,456	5,456	0	10	10,854	100.0%	10,854
PUMP REPLACEMENT	2002	7,933	7,933	0	15	15,782	100.0%	15,782
WWTP PHASE 4A	2002	463,020	231,510	231,510	40	921,142	100.0%	921,142
WWTP PHASE 4 PRE-DESIGN	2002	196,446	98,223	98,223	40	390,814	100.0%	390,814
WWTP Biofilter #1 & #2 Media	2003	19,000	8,550	10,450	40	36,918	100.0%	36,918
CHLORINE SULFER DIOXIDE COMPLEX	2003	1,283,948	1,283,948	0	8	2,494,788	100.0%	2,494,788
DIGESTER FEED PUMP	2003	9,054	8,602	453	20	17,593	100.0%	17,593
WWTP - PHASE 4	2003	866,620	411,644	454,975	40	1,683,894	100.0%	1,683,894
GIS Master Planning	2004	19,226	8,652	10,574	40	35,147	0.0%	0
Inflow Identification	2004	38,623	11,587	27,036	60	70,607	100.0%	70,607
WWTP Phase 4B - VFDs	2004	24,827	24,827	0	8	45,386	100.0%	45,386
WWTP Phase 4B Effluent Pump Station Constrctn	2004	62,569	28,156	34,413	40	114,382	100.0%	114,382
WWTP - Phase 4	2005	197,600	83,980	113,620	40	345,173	100.0%	345,173
Phase 4B-utility line, electric & gas relocation	2005	112,463	47,797	64,666	40	196,454	100.0%	196,454
WWTP Phase 4B - Construction	2005	2,197,030	933,738	1,263,292	40	3,837,834	100.0%	3,837,834
WWTP Phase 4B Design	2005	337,708	143,526	194,182	40	589,917	100.0%	589,917

City of Coeur D'Alene
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Description	Year	Original Cost	Accumulated Depreciation	Net Book Value	Useful Life	2022	Percent CF Eligible	CF Eligible
WWTP Phase 4B Design	2005	192,775	86,749	106,026	40	336,744	100.0%	336,744
WASTEWATER TREATMENT - BOILER	2006	118,578	35,573	83,005	50	198,979	100.0%	198,979
STANDBY GENERATOR #2	2006	93,800	30,016	63,784	50	157,400	100.0%	157,400
Eng Polymer System Modifications & Engine Generato	2006	25,440	10,176	15,264	40	42,689	100.0%	42,689
POLYMER MIXER	2006	247,504	92,814	154,690	40	415,322	100.0%	415,322
POLYMER MIXER & GENERATOR DESIGN	2006	29,931	11,224	18,707	40	50,225	100.0%	50,225
SECONDARY CLARIFIER #1	2006	531,660	531,660	0	15	892,148	100.0%	892,148
TRICKLING FILTER PUMP STATION	2006	574,536	183,852	390,684	50	964,096	100.0%	964,096
WASTEWATER TREATMENT PLANT PHASE 4A	2006	20,756	7,783	12,972	40	34,829	100.0%	34,829
WWTP Phase 4B Centrifuge O&M Manuals & Field Servi	2006	45,600	18,240	27,360	40	76,519	100.0%	76,519
WWTP Phase 4B Centrifuge O&M Manuals & Field Servi	2006	60,800	24,320	36,480	40	102,025	100.0%	102,025
WWTP Phase 4B Construction	2006	7,776,803	3,110,721	4,666,082	40	13,049,803	100.0%	13,049,803
WWTP Phase 4B Engineering	2006	837,578	335,031	502,547	40	1,405,491	100.0%	1,405,491
WASTEWATER TREATMENT PLANT PHASE 4B	2006	1,865,979	699,742	1,166,237	40	3,131,191	100.0%	3,131,191
WASTEWATER TREATMENT PLANT PHASE 4B	2006	349,106	130,915	218,191	40	585,815	100.0%	585,815
WASTEWATER TREATMENT PLANT PHASE 4B-Permit	2006	21,554	8,083	13,471	40	36,168	100.0%	36,168
WASTEWATER TREATMENT PLANT PHASE 4B-HDR Planning	2006	118,754	44,533	74,221	40	199,274	100.0%	199,274
CHLORINE CONTACT TANK & EFFLUANT PUMP STATION	2007	925,063	925,063	0	8	1,510,201	100.0%	1,510,201
GRIT PUMPS	2007	26,144	9,150	16,994	40	42,681	100.0%	42,681
RIVER USE ANALYSIS	2007	54,820	30,699	24,121	25	89,496	0.0%	0
GRAVITY SLUDGE THICKNER #2	2007	137,381	34,345	103,036	60	224,280	100.0%	224,280
WWTP PHASE 4B	2007	51,722	18,103	33,619	40	84,439	100.0%	84,439
BOILER REPLACEMENT	2008	10,326	7,228	3,098	20	16,161	100.0%	16,161
Compressor - Gas Digester #4	2008	11,992	11,992	0	5	18,767	100.0%	18,767
DIGESTER 2 REPAIR	2008	232,948	75,708	157,240	40	364,563	100.0%	364,563
Launders-Sec C1&2 Refurbish	2008	61,919	43,343	18,576	20	96,902	100.0%	96,902
GRIT HOPPER	2008	3,644	3,644	0	8	5,703	100.0%	5,703
WWTP - Spokane River Legal	2008	67,414	21,910	45,505	40	105,503	0.0%	0
Digesters\Clarifiers - Refurbish	2008	359,028	100,528	258,500	50	561,877	100.0%	561,877
PUMP STATION REBUILD	2008	27,316	8,878	18,438	40	42,749	100.0%	42,749
SECONDARY CLARIFIER #2	2008	37,402	34,909	2,493	50	58,534	100.0%	58,534
SLUDGE PUMP P-231	2008	13,925	4,526	9,399	40	21,793	100.0%	21,793
SLUDGE PUMP P-232	2008	13,952	4,534	9,418	40	21,835	100.0%	21,835
WWTP- Phase 5 Design\Planning	2008	496,521	107,579	388,941	60	777,052	100.0%	777,052
WWTP- Phase 5 A Design	2008	2,319,390	753,802	1,565,588	40	3,629,830	100.0%	3,629,830
WWTP - Phase 5 Pilot Studies	2008	653,327	212,331	440,995	40	1,022,452	100.0%	1,022,452
WWTP - Phase 5 Permit Planning	2008	123,313	40,077	83,236	40	192,984	100.0%	192,984
WWTP - Phase 5 Archeologic Inv	2008	35,176	11,432	23,744	40	55,050	100.0%	55,050
WWTP - PREMIT RENEWAL PLANNING	2009	276,016	82,805	193,211	40	418,678	0.0%	0
SECONDARY CLARIFIER DRIVE #2	2009	39,036	11,711	27,325	40	59,212	100.0%	59,212
WWTP PHASE 4C	2009	309,736	92,921	216,815	40	469,827	100.0%	469,827
WWTP PHASE 5B BLDG PERMITS	2009	4,115	1,235	2,881	40	6,243	100.0%	6,243
WWTP PHASE 5B PERMITS	2009	42,732	12,819	29,912	40	64,818	100.0%	64,818
WWTP PHASE 5B WATER CONNECTION	2009	44,525	13,358	31,168	40	67,538	100.0%	67,538
WWTP Phase 5B Design	2009	404,467	121,340	283,127	40	613,520	100.0%	613,520
WWTP - LOW PHOSPHORUS PILOT FACILITIES	2009	2,521,138	756,341	1,764,797	40	3,824,216	100.0%	3,824,216
REROOF EFFLUENT BLDG	2010	23,078	9,231	13,847	30	34,101	100.0%	34,101
WWTP PHASE 5B	2010	4,135,153	1,240,546	2,894,607	40	6,110,301	100.0%	6,110,301
WWTP Phase 5B Permit Planning	2010	14,052	4,215	9,836	40	20,763	100.0%	20,763
WWTP Phase 5B Construction	2010	85,275	25,583	59,693	40	126,006	100.0%	126,006
WWTP Phase 5B Digesters/Claifiers	2010	2,618	785	1,832	40	3,868	100.0%	3,868
WWTP Phase 5B Pilot Studies	2010	5,478	1,643	3,834	40	8,094	100.0%	8,094
WWTP Phase 5B Digesters/Claifiers	2010	4,675	1,402	3,272	40	6,908	100.0%	6,908
WWTP Phase 5B Permit Renewal Planning	2010	9,230	2,769	6,461	40	13,639	100.0%	13,639
WWTP Phase 5B Permit Renewal Planning	2010	11,209	3,363	7,847	40	16,563	100.0%	16,563
WWTP - PHASE 5B - DESIGN & ENGINEERING	2010	1,222,846	336,283	886,564	40	1,806,936	100.0%	1,806,936

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Description	Year	Original Cost	Accumulated Depreciation	Net Book Value	Useful Life	2022	Percent CF Eligible	CF Eligible
WWTP - PAHSE 5B - PERMIT & STRUCTURE	2010	3,408,217	937,260	2,470,957	40	5,036,145	100.0%	5,036,145
WWTP - PHASE 5B -	2010	883,867	243,064	640,804	40	1,306,045	100.0%	1,306,045
WWTP - PHASE 5B -	2010	960,100	264,027	696,072	40	1,418,690	100.0%	1,418,690
WWTP- PHASE 5B -	2010	1,275,077	350,646	924,430	40	1,884,114	100.0%	1,884,114
WWTP PHASE 5B- Backup Solids	2010	37,479	10,307	27,173	40	55,381	100.0%	55,381
NPDES PERMIT & TMDL REVIEW	2011	128,821	35,426	93,395	40	184,653	100.0%	184,653
2011 PILOT STUDIES	2011	236,649	65,079	171,571	40	339,214	100.0%	339,214
WWTP - CLARIFIER 2 COATING	2011	196,525	72,059	124,466	30	281,700	100.0%	281,700
WWTP - INFLOW REDUCTION	2011	4,714	4,714	0	5	6,758	100.0%	6,758
CIPP Rehabilitaion/inflow design	2011	183,390	30,565	152,825	60	262,872	100.0%	262,872
WWTP PHASE 5B- SECONDARY CLARIFIER #2	2011	23,767	6,536	17,231	40	34,068	100.0%	34,068
WWTP - PHASE 5B - COMPUTER INFASTRUCTURE	2011	14,198	14,198	0	5	20,352	100.0%	20,352
WWTP - PHASE 5B -	2011	9,351	2,572	6,780	40	13,404	100.0%	13,404
WWTP 5C DESIGN	2011	83,426	22,942	60,484	40	119,583	100.0%	119,583
2 CL 1000 Chlorine Analyzer for Total Chlorine	2012	15,672	15,672	0	8	21,900	100.0%	21,900
Wasting Pump	2012	17,663	17,663	0	8	24,682	100.0%	24,682
NPDES permit & TMDL review	2012	108,549	27,137	81,412	40	151,683	100.0%	151,683
5-B primary clarifier scum pump	2012	10,533	10,533	0	5	14,718	100.0%	14,718
WWTP Phase 5B construction	2012	1,153,712	288,428	865,284	40	1,612,153	100.0%	1,612,153
WWTP Phase 5B Construction - interest on loan	2012	108,575	27,144	81,432	40	151,719	100.0%	151,719
WWTP Phase 5C.1	2012	578,002	144,500	433,501	40	807,677	100.0%	807,677
3 chlorinators automatic gas feeder CL2 200ppd	2013	15,500	15,500	0	8	21,118	100.0%	21,118
2 sulfonators panel automatic gas feeder SO2 200pp	2013	11,000	11,000	0	8	14,987	100.0%	14,987
Grit Pump 3 pump	2013	17,068	17,068	0	8	23,254	100.0%	23,254
WWTP Permit Renewal Planning	2013	155,678	35,027	120,650	40	212,104	100.0%	212,104
Trickling Filter Recirc pump and rebuild	2013	29,614	29,614	0	8	40,348	100.0%	40,348
WWTP 5C.1 Tertiary Treatment	2013	1,021,890	229,925	791,965	40	1,392,281	100.0%	1,392,281
Biofilter Replacement	2014	19,500	3,413	16,088	40	25,864	100.0%	25,864
WWTP Permit Renewal Planning	2014	102,415	20,483	81,932	40	135,838	0.0%	0
Primary Clarifier Drive retrofit	2014	53,000	10,600	42,400	40	70,296	100.0%	70,296
retrofit Primary Clarifier Drive	2014	53,000	9,275	43,725	40	70,296	100.0%	70,296
Sludge Monster - DCB Project	2014	8,179	1,091	7,088	60	10,848	100.0%	10,848
Muffine Monster solids building thick sludge grind	2014	17,358	3,472	13,886	40	23,023	100.0%	23,023
WWTP 5C.1 Tertiary Treatment Project	2014	8,992,550	1,798,510	7,194,040	999	11,927,204	100.0%	11,927,204
Digester #3 Coating	2015	59,738	10,454	49,284	40	77,426	100.0%	77,426
Hawks Nest 2nd 25HP Flygt Pump	2015	27,000	4,725	22,275	40	34,995	100.0%	34,995
R & R Drive Unit Clarifier #1	2015	21,745	3,805	17,940	40	28,184	100.0%	28,184
Primary Clarifier 2 Refurbish	2015	38,187	6,683	31,504	40	49,494	100.0%	49,494
WWTP 5C.1 Tertiary Treatment	2015	1,952,748	341,731	1,611,017	40	2,530,951	100.0%	2,530,951
WWTP 5C.1 Tertiary Treatment	2015	318,246	47,737	270,509	40	412,478	100.0%	412,478
Digester 4 Mixing Valves	2016	13,375	13,367	7	5	16,826	100.0%	16,826
New Coating Digester #4	2016	149,794	18,715	131,079	40	188,450	100.0%	188,450
Hydraulic Lift Gate	2016	13,965	8,379	5,586	10	17,569	100.0%	17,569
AWTF Door Replacement	2016	36,000	35,980	20	5	45,290	100.0%	45,290
Low-P Pilot Bldg storage	2016	40,772	5,094	35,678	40	51,294	100.0%	51,294
Trickling Filter #1 Coating	2017	16,400	2,049	14,351	40	19,868	100.0%	19,868
Impeller Pump	2018	13,540	1,016	12,525	40	15,921	100.0%	15,921
CIP AWTF Facility Plan	2018	109,129	0	109,129	NA	128,316	0.0%	0
PolyBlen-Polymer Blending System Centrifuge	2018	12,689	952	11,737	40	14,920	100.0%	14,920
5C.2 Tertiary Treatment	2018	7,496,317	749,632	6,746,685	40	8,814,337	100.0%	8,814,337
Chem System Bldg. Reroof	2019	54,932	5,493	49,439	30	63,334	100.0%	63,334
Digester 3 valves	2019	15,969	3,992	11,977	8	18,412	100.0%	18,412
Foul Air Duct Recoating	2019	55,514	4,164	51,350	40	64,005	100.0%	64,005
Generator for Sourcewell #81485	2019	52,184	7,828	44,356	20	60,166	100.0%	60,166
CIP AWTF Facility Plan	2019	156,443	0	156,443	NA	180,371	0.0%	0
Heat Exchanger for Sludge Recirc Pump	2019	34,440	2,583	31,857	40	39,708	100.0%	39,708

City of Coeur D'Alene
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Exhibit 27 - Collection Main Calculation

Description	Year	Original Cost	Accumulated Depreciation	Net Book Value	Useful Life	2022	Percent CF Eligible	CF Eligible
Existing Collection Mains								
SEWER LINES	1940	$103,243	$103,243	$0	60	$5,549,031	100.0%	$5,549,031
SEWER LINES INSTALLED	1940	57,025	57,025	0	60	3,064,939	100.0%	3,064,939
SEWER LINES	1949	52,000	52,000	0	60	1,417,937	100.0%	1,417,937
SEWER LINES	1949	127,768	123,509	4,259	60	3,483,980	100.0%	3,483,980
SEWER LINES	1952	207,612	207,612	0	60	4,745,829	100.0%	4,745,829
SEWER LINES	1953	21,371	21,371	0	60	463,282	100.0%	463,282
SEWER PIPE	1957	26,631	26,631	0	60	478,433	100.0%	478,433
SEWER PIPE	1958	16,478	16,478	0	60	282,380	100.0%	282,380
SEWER PIPE	1985	56,791	35,021	21,770	60	176,084	100.0%	176,084
GOVT WAY INTERCEPTOR	1985	327,805	202,146	125,659	60	1,016,379	100.0%	1,016,379
RAMSEY INTERCEPTOR	1985	591,481	437,696	153,785	50	1,833,922	100.0%	1,833,922
SEWER PIPE	1986	91,217	54,730	36,487	60	276,239	100.0%	276,239
SEWER PIPE	1988	345,149	195,584	149,565	60	993,428	100.0%	993,428
SEWER PIPE DONATED	1989	713,796	392,588	321,208	60	2,011,751	0.0%	0
SEWER PIPE	1990	133,764	71,341	62,423	60	367,677	100.0%	367,677
SEWER PIPE DONATED	1990	1,069,120	570,197	498,923	60	2,938,689	0.0%	0
SEWER PIPE	1991	108,500	56,058	52,442	60	291,881	100.0%	291,881
SEWER PIPE DONATED	1991	2,552,882	1,318,989	1,233,893	60	6,867,619	0.0%	0
LMI SEWER HOOKUP FEES	1991	209,648	108,318	101,330	60	563,983	100.0%	563,983
SEWER PIPE	1992	65,153	32,577	32,576	60	169,997	100.0%	169,997
LMI SEWER HOOKUPS	1992	72,815	36,408	36,407	60	189,989	100.0%	189,989
JULIA STREET SEWER	1992	305,072	152,536	152,536	60	795,993	100.0%	795,993
SEWER PIPE	1993	191,341	92,481	98,860	60	477,686	100.0%	477,686
LID CONTRIBUTIONS	1993	29,368	14,195	15,173	60	73,318	100.0%	73,318
DEVELOPER'S DONATIONS	1993	952,258	444,387	507,871	60	2,377,326	0.0%	0
SEWER PIPE	1994	268,716	125,401	143,315	60	646,292	100.0%	646,292
DEVELOPER'S DONATIONS	1994	637,977	297,723	340,254	60	1,534,406	0.0%	0
SEWER PIPE	1995	342,137	153,962	188,175	60	813,402	100.0%	813,402
DEVELOPER'S DONATIONS	1995	1,421,161	639,522	781,639	60	3,378,691	0.0%	0
SEWER PIPE	1996	6,479	2,808	3,671	60	14,995	100.0%	14,995
SEWER PIPE	1996	50,752	21,993	28,759	60	117,460	100.0%	117,460
SEWER LINE LID 132	1996	904,224	391,830	512,394	60	2,092,722	100.0%	2,092,722
SEWER LINE LID 129	1996	1,056,302	457,731	598,571	60	2,444,689	100.0%	2,444,689
DEVELOPER'S DONATIONS	1996	1,127,036	488,382	638,654	60	2,608,395	0.0%	0
SEWER LINE LID 129	1997	27,668	11,528	16,140	60	61,770	100.0%	61,770
SEWER LINE LID 132	1997	140,543	58,560	81,983	60	313,769	100.0%	313,769
SEWER PIPE	1997	300,641	125,267	175,374	60	671,196	100.0%	671,196
SEWER LINE DONATED	1997	772,552	321,897	450,655	60	1,724,762	0.0%	0
SEPTIC TANK ABATEMENT	1997	48,901	20,375	28,526	60	109,174	100.0%	109,174
LID 140 CAP FEES	1997	274,923	114,551	160,372	60	613,780	100.0%	613,780
SEWER LINE	1998	55,279	22,112	33,167	60	121,454	100.0%	121,454
SEWER LINE DONATED	1998	730,596	292,238	438,358	60	1,605,194	0.0%	0
RIVERSIDE INTERCEPTOR	1998	24,985	9,994	14,991	60	54,895	100.0%	54,895
15TH STREET SEWER LINE EXTENSION	2000	142,684	52,317	90,366	60	298,323	100.0%	298,323
HEARTLAND V,LINE SIZE 8, DEPTH 9, 9 MANHOLES (1423)	2000	56,109	20,573	35,536	60	117,312	100.0%	117,312
CDA PLACE 7TH ADD "B",LINE SIZE 8, DEPTH 10 (257)	2000	6,882	2,524	4,359	60	14,390	100.0%	14,390
RAILROAD ADD "SOUTH"I,LINE SIZE 8, DEPTH 10.5, 2 MANHOLES	2000	8,899	3,263	5,636	60	18,607	100.0%	18,607
BUILDING CENTER DR,LINE SIZE 8,DEPTH 10,1 MANHOLE (406)	2000	12,874	4,721	8,154	60	26,917	100.0%	26,917
CDA PLACE 9TH ADD "A",LINE SIZE 8, DEPTH 9, 3 MANHOLES(902)	2000	30,154	11,056	19,097	60	63,046	100.0%	63,046
VILLAGE II "CONDOS",LINE SIZE 8, DEPTH 10.5, 3 MANHOLES (769	2000	32,552	11,936	20,616	60	68,059	100.0%	68,059
CDA PLACE 6TH ADD,LINE SIZE 8, DEPTH 10, 4 MANHOLES(973)	2000	34,055	12,487	21,568	60	71,202	100.0%	71,202
PROSPECTORS RIDGE II,LINE SIZE 8, DEPTH 10, 7 MANHOLES (829)	2000	36,202	13,274	22,928	60	75,692	100.0%	75,692
LAKE FOREST III,LINE SIZE 8, DEPTH 9, 18 MANHOLES (520)	2000	49,925	18,306	31,619	60	104,383	100.0%	104,383
CANFIELD PK 6TH ADD, LINE SIZE 8, DEPTH 10,6 MANHOLES (1593)	2000	54,672	20,046	34,625	60	114,308	100.0%	114,308
CDA PLACE 10TH ADD,LINE SIZE 8, DEPTH 9, 9 MANHOLES (1750)	2000	64,873	23,787	41,086	60	135,635	100.0%	135,635

Description	Year	Original Cost	Accumulated Depreciation	Net Book Value	Useful Life	2022	Percent CF Eligible	CF Eligible
CDA PL 7TH ADD "B",LINE SIZE 12, DEPTH 12, 6 MANHOLES (1471)	2000	71,123	26,078	45,044	60	148,703	100.0%	148,703
LAKE FOREST IV,LINE SIZE 8, DEPTH 10, 2 MANHOLES (3767)	2000	104,873	38,454	66,420	60	219,269	100.0%	219,269
BENTWOOD-PHASE III, LINE SIZE 8, DEPTH 12,14 MANHOLES(2485)	2000	149,522	54,825	94,698	60	312,621	100.0%	312,621
CEDERWOOD ESTATES II, LINE SIZE 8, DEPTH 7.8, 1 MANHOLE (140	2001	5,191	1,817	3,374	60	10,660	100.0%	10,660
PROSPECTOR RIDGE II ADDN, LINE SIZE 8, DEPTH 10, 2 MANHOLES	2001	16,577	5,802	10,775	60	34,040	100.0%	34,040
CDA 7TH ADDN PHASE B, LINE SIZE 12, DEPTH 8 (520)	2001	16,770	5,870	10,901	60	34,437	100.0%	34,437
CDA 7TH ADDN, PHASE B, LINE SIZE 8,DEPTH 8, 3 MANHOLES (395)	2001	17,566	6,148	11,418	60	36,071	100.0%	36,071
ROCKWOOD LODGE APTS, LINE SIZE 8, DEPTH 8, 3 MANHOLES (653)	2001	24,533	8,587	15,947	60	50,379	100.0%	50,379
CDA 9TH ADDN, PHASE B, LINE SIZE 8,DEPTH 8, 3 MANHOLES (913)	2001	31,553	11,044	20,510	60	64,795	100.0%	64,795
BLUEGRASS II ADDN PHSE B, LINE SIZE 8,DEPTH 8, 5 MANHOLES	2001	45,143	15,800	29,343	60	92,700	100.0%	92,700
LAKE FOREST 5TH ADDN, LINE SIZE 8, DEPTH 8, 7 MANHOLES (1298	2001	51,154	17,904	33,250	60	105,045	100.0%	105,045
BENTWOOD II ADDN, LINE SIZE 8, DEPTH 8.2, 5 MANHOLES (1667)	2001	57,420	20,097	37,323	60	117,913	100.0%	117,913
LAKE FOREST 6TH ADDN, LINE SIZE 8, DEPTH 8, 7 MANHOLES(1711)	2001	62,298	21,804	40,493	60	127,928	100.0%	127,928
CUMBERLAND MEADOWS, LINE SIZE 8, DEPTH 8, 14 MANHOLES (2885)	2001	110,092	38,532	71,560	60	226,073	100.0%	226,073
RIVERSTONE, LINE SIZE 8, DEPTH 12.3, 19 MANHOLES (3684)	2001	233,455	81,709	151,746	60	479,399	100.0%	479,399
MANHOLE & LINE REPAIR & REPLACEMENT	2001	29,247	10,237	19,011	60	60,059	100.0%	60,059
MISC SEWER REPLACEMENTS	2001	18,229	6,380	11,849	60	37,433	100.0%	37,433
BOYD AVE SEWER REPLACEMENT	2001	106,770	37,370	69,401	60	219,252	100.0%	219,252
SELTICE WAY & PENN AVE SEWER REPLACEMENT	2001	254,694	89,143	165,551	60	523,012	100.0%	523,012
DONATED SEWER LINES-ECHO GLEN/OFF SITE (577)	2002	20,437	6,812	13,625	60	40,659	0.0%	0
DONATED SEWER LINES-LAKE FOREST 7TH (705)	2002	24,280	8,093	16,187	60	48,304	0.0%	0
DONATED SEWER LINES-PALISAIDES (376)	2002	25,978	8,659	17,319	60	51,681	0.0%	0
DONATED SEWER LINES-VILLAGE CONDO PHASE II (773)	2002	34,661	11,554	23,108	60	68,956	0.0%	0
DONATED SEWER LINES-CANFIELD CORNERS (1685)	2002	50,904	16,968	33,936	60	101,269	0.0%	0
DONATED SEWER LINES-BENTWOOD PHASE III (1508)	2002	61,421	20,474	40,947	60	122,192	0.0%	0
DONATED SEWER LINES-ECHO GLEN/INITIAL PHASE (1697)	2002	81,422	27,141	54,281	60	161,983	0.0%	0
DONATED SEWER LINES-PALISAIDES (1283)	2002	82,420	27,473	54,947	60	163,968	0.0%	0
SELTICE WAY & PENN AVE SEWER REPLACEMENT	2002	117,286	39,095	78,191	60	233,331	100.0%	233,331
MANHOLE & LINE REPAIR REPLACEMENTS	2002	145,815	48,605	97,210	60	290,087	100.0%	290,087
MULLAN AVE 21ST -23RD & 19TH SEWER REPLACEMENT	2002	155,642	51,881	103,761	60	309,638	100.0%	309,638
SEWER - REPLACE LINES	2003	168,518	53,364	115,154	60	327,441	100.0%	327,441
SEWERS - DONATED, DEVELOPER	2003	831,239	263,226	568,013	60	1,615,146	0.0%	0
SEWER LINES - DONATED, PROJECTS	2003	142,179	45,023	97,156	60	276,263	0.0%	0
Alley sewer upgrade Foster/Brown & 8th-10th Alleys	2003	10,292	3,088	7,205	60	19,999	100.0%	19,999
Alley sewer upgrade Foster Alley	2004	7,198	2,160	5,039	60	13,159	100.0%	13,159
Manhole upgrade on 6th & between 9th & 10th	2004	10,521	3,156	7,365	60	19,233	100.0%	19,233
Manhole replacement/upgrade 4th St	2004	11,151	3,345	7,806	60	20,385	100.0%	20,385
Manhole and pipe upgrade Sherman Ave @ 1-90	2004	18,279	5,484	12,795	60	33,415	100.0%	33,415
Upgrade manhole - 7th and Elm	2004	5,095	1,529	3,566	60	9,314	100.0%	9,314
Sewer lines - donated projects - Fruitland LID	2004	74,589	22,377	52,213	60	136,356	100.0%	136,356
CIPP Rehabilitation Design	2004	45,500	13,650	31,850	60	83,178	100.0%	83,178
Bidding / Construction/ Closeout upgrade lines	2004	41,057	12,317	28,740	60	75,056	100.0%	75,056
Install new sewer main and manhole 3rd St	2004	20,294	6,088	14,206	60	37,099	100.0%	37,099
2004 open trench sewer replacements	2004	46,270	13,881	32,389	60	84,585	100.0%	84,585
CIPP Rehabilitation	2004	237,239	71,172	166,067	60	433,693	100.0%	433,693
Donated Sewer Lines-Bentwood 6th (Final) 8" 9ft	2004	37,715	11,315	26,400	60	68,946	0.0%	0
Donated sewer lines-Cda Place 13th Addn 8" 9ft	2004	83,307	24,992	58,315	60	152,292	0.0%	0
Donated sewer lines-Echo Glen 2nd 8" 7.5ft	2004	29,437	8,831	20,606	60	53,813	0.0%	0
Donated lines Edgewater (Mill River) 8" 12.5 ft	2004	119,234	35,770	83,464	60	217,970	0.0%	0
Donated sewer lines Hidden Gardens 8" 7.5ft	2004	42,044	12,613	29,431	60	76,860	0.0%	0
Donated sewer lines Holy Family 8" 5ft	2004	5,220	1,566	3,654	60	9,543	0.0%	0
Donated Sewer Lines Landings 8" 11.3 ft	2004	300,282	90,085	210,197	60	548,942	0.0%	0
Donated Sewer lines Paradise Place 8" 5.5 ft	2004	18,778	5,633	13,145	60	34,328	0.0%	0
Donated Lines Ramsey Meadows 3rd Addn 8" 8ft	2004	31,377	9,413	21,964	60	57,360	0.0%	0
Donated Lines Sunshine Meadows E 1st Phase 8" 13ft	2004	301,689	90,507	211,182	60	551,514	0.0%	0
Donated Lines Sunshine Meadws E 1st Phase 10" 13ft	2004	60,419	18,126	42,293	60	110,451	0.0%	0

Description	Year	Original Cost	Accumulated Depreciation	Net Book Value	Useful Life	2022	Percent CF Eligible	CF Eligible
Donated Lines Sunshine Meadws E 2nd & 3rd 8" 8.5ft	2004	145,703	43,711	101,992	60	266,358	0.0%	0
Donated Sewer Lines CdA Place 13th 10"	2004	30,509	9,153	21,356	60	55,773	0.0%	0
Installed conduit and data cabling-WW & City Hall	2004	15,210	15,210	0	5	27,805	100.0%	27,805
CIPP Rehabilitation-Alley N of Wallace 3rd to 4th	2005	123,633	35,029	88,603	60	215,965	100.0%	215,965
2004 open trench sewer replacements	2005	106,662	30,221	76,441	60	186,321	100.0%	186,321
2004 open trench sewer replacements	2005	79,253	22,455	56,798	60	138,442	100.0%	138,442
2004 open trench sewer replacements	2005	29,841	8,455	21,386	60	52,128	100.0%	52,128
CIPP Rehabilitation	2005	8,000	2,267	5,733	60	13,975	100.0%	13,975
CIPP Rehabilitation	2005	300,896	85,254	215,642	60	525,613	100.0%	525,613
CIPP Rehabilitation	2005	101,377	28,723	72,653	60	177,088	100.0%	177,088
Donated Sewer Lines-2nd St Extension	2005	8,763	2,483	6,280	60	15,307	0.0%	0
Donated Sewer Lines-Cda Place Bolivar 1st Addn	2005	9,871	2,797	7,074	60	17,243	0.0%	0
Donated Sewer Lines-CdA Place 14th Addn	2005	109,864	31,128	78,736	60	191,914	0.0%	0
Donated Sewer Lines-Jae's Place	2005	27,561	7,809	19,752	60	48,144	0.0%	0
Donated Sewer Lines-Lake Forest Townhouses	2005	61,251	17,354	43,897	60	106,995	0.0%	0
Donated Sewer Lines-Landings 1st Addn	2005	215,088	60,942	154,146	60	375,722	0.0%	0
Donated Sewer Lines-Landings 2nd Addn	2005	453,159	128,395	324,764	60	791,591	0.0%	0
Donated Sewer Lines-Mill River 1st Addn	2005	127,962	36,256	91,706	60	223,528	0.0%	0
Donated Sewer Lines-Mill River 2nd Addn	2005	78,895	22,354	56,541	60	137,816	0.0%	0
Donated Sewer Lines-Mill River Offsite Gravity	2005	115,153	32,627	82,526	60	201,153	0.0%	0
Donated Sewer Lines-Orchard Lands	2005	206,128	58,403	147,725	60	360,070	0.0%	0
Donated Sewer Lines-Ramsey Meadows 3rd	2005	45,814	12,981	32,833	60	80,029	0.0%	0
Donated Sewer Lines-Riverstone 1 Addn	2005	189,302	53,636	135,666	60	330,678	0.0%	0
Donated Sewer Lines-Shadow Wood Estates II Addn	2005	38,365	10,870	27,495	60	67,017	0.0%	0
Donated Sewer Lines-Stagecoach Addn	2005	13,684	3,877	9,807	60	23,904	0.0%	0
Donated Sewer Lines-Sunshine Meadows-West correcti	2005	7,043	1,995	5,048	60	12,303	0.0%	0
Donated Sewer Lines-Sunshine Meadows-East 4th Addn	2005	87,912	24,908	63,004	60	153,567	0.0%	0
Donated Sewer Lines-Sunshine Meadows - West	2005	206,199	58,423	147,776	60	360,194	0.0%	0
SEWER - Hawks Nest - Review JUB	2006	2,035	763	1,272	40	3,416	0.0%	0
SEWER - Riverstone - Review JUB	2006	2,035	763	1,272	40	3,416	0.0%	0
Lift Station Addn, Donated Mill River	2006	89,591	26,877	62,714	50	150,337	0.0%	0
Sewer Lines, Donated CDA Place 16th Addn	2006	107,014	32,104	74,910	50	179,574	0.0%	0
Sewer Lines, Donated Hawks Nest 1st Addn	2006	383,254	114,976	268,278	50	643,116	0.0%	0
Sewer Lines, Donated Hawks Nest 1st and 2nd Addn	2006	243,016	72,905	170,111	50	407,791	0.0%	0
Sewer Lines, Donated Riverside Interceptor (route	2006	30,852	9,256	21,596	50	51,771	0.0%	0
Sewer Lines, Donated RW John Loop Off-Road	2006	41,910	12,573	29,337	50	70,327	0.0%	0
Sewer Lines, Donated RW Riverstone Drive Phase II	2006	38,210	11,463	26,747	50	64,118	0.0%	0
Sewer Lines, Donated Terraces (Hagadone)	2006	21,820	6,546	15,274	50	36,615	0.0%	0
CIPP Rehabilitation	2006	89,460	23,856	65,604	60	150,117	100.0%	150,117
CIPP Rehabilitation	2006	288,139	76,837	211,302	60	483,509	100.0%	483,509
CIPP Rehabilitation	2006	39,532	10,542	28,990	60	66,337	100.0%	66,337
Sewer lines for Library project - 2006	2006	51,298	13,679	37,618	60	86,079	100.0%	86,079
2006 Wastewater Open Trench Replacements	2006	50,440	13,451	36,989	60	84,640	100.0%	84,640
Sewer Main at 1st & Lakeside for new Chamber Bldg	2006	128,425	34,247	94,178	60	215,503	100.0%	215,503
Donated Sewer Lines-Copper Ridge	2006	154,735	41,262	113,473	60	259,652	0.0%	0
Donated Sewer Lines-Hawks Nest	2006	452,218	120,591	331,627	60	758,841	0.0%	0
Donated Sewer Lines-Holiday Inn/Seltice	2006	34,059	9,082	24,977	60	57,152	0.0%	0
Donated Sewer Lines-Ice Plant Condos	2006	25,950	6,920	19,030	60	43,545	0.0%	0
Donated Sewer Lines- Mill River - Lift Station	2006	148,770	39,672	109,098	60	249,642	0.0%	0
Donated Sewer Lines-Mill River Off-site siphon	2006	480,031	128,008	352,023	60	805,512	0.0%	0
Donated Sewer Lines-Best Hills/Grand Fir	2006	6,026	1,607	4,419	60	10,112	0.0%	0
Donated Sewer Lines-Landings 3rd Addn	2006	46,593	12,425	34,168	60	78,185	0.0%	0
Donated Sewer Lines-Landings 4th Addn	2006	516,856	137,828	379,028	60	867,306	0.0%	0
Donated Sewer Lines-Riverside Lift Station	2006	200,000	53,333	146,667	60	335,608	0.0%	0
Donated Sewer Lines-RW Riverstone Dr Phase 1	2006	56,245	14,999	41,246	60	94,381	0.0%	0
Donated Sewer Lines-Riverstone Dr Off Road	2006	22,794	6,078	16,716	60	38,249	0.0%	0

Description	Year	Original Cost	Accumulated Depreciation	Net Book Value	Useful Life	2022	Percent CF Eligible	CF Eligible
Donated Sewer Lines-Village Condo's 10th Addn	2006	10,973	2,926	8,047	60	18,413	0.0%	0
Donated Sewer Lines-Bolivar 2nd Addn	2006	52,105	13,895	38,210	60	87,434	0.0%	0
Donated Sewer Lines-CdA Place - 15th Addn	2006	140,694	37,518	103,176	60	236,090	0.0%	0
Donated Sewer Lines-Clayton/Auto Center Ext	2006	11,022	2,939	8,083	60	18,495	0.0%	0
Donated Sewer Lines-Clayton/Bldg Center Dr Exten	2006	8,585	2,289	6,296	60	14,406	0.0%	0
Sewer Lines Donated, Hawks Nest 1st & 2nd Addn	2006	104,324	31,297	73,027	50	175,060	0.0%	0
SEWER REPLACEMENT - Open Trench	2006	404,341	101,085	303,256	60	678,501	100.0%	678,501
SEWER REPLACEMENT- Alley Forest Dr. & Military Dr.	2006	97,698	24,424	73,273	60	163,941	100.0%	163,941
HUETTER INTERCEPTOR	2006	54,213	13,553	40,659	60	90,971	100.0%	90,971
RAMSEY ROAD SEWER PROJECT	2006	140,589	52,721	87,868	40	235,914	100.0%	235,914
HUETTER INTERCEPTOR	2007	496,888	139,129	357,759	60	811,188	100.0%	811,188
STORM PUMP	2008	4,100	2,296	1,804	25	6,416	100.0%	6,416
GIS/Sewer Planning	2008	29,038	29,038	0	8	45,444	0.0%	0
SEWER LINES, Donated, Bellerive	2008	7,622	1,778	5,844	60	11,928	0.0%	0
SEWER LINES, Donated, CDA Place, Sorbonne	2008	200,602	46,807	153,795	60	313,941	0.0%	0
SEWER LINES, Donated, Cottage Grove	2008	53,800	12,553	41,247	60	84,197	0.0%	0
SEWER LINES, Donated, Hawks Nest	2008	2,291,346	534,647	1,756,699	60	3,585,941	0.0%	0
SEWER LINES, Donated, Haycraft	2008	5,403	1,261	4,142	60	8,456	0.0%	0
SEWER LINES, Donated, Landings	2008	270,339	63,079	207,260	60	423,079	0.0%	0
SEWER LINES, Donated, Meadow Ranch	2008	122,982	28,696	94,286	60	192,466	0.0%	0
SEWER LINES, Donated, Provence	2008	62,786	14,650	48,136	60	98,260	0.0%	0
SEWER LINES, Donated, Riverstone	2008	20,050	4,678	15,372	60	31,378	0.0%	0
SEWER LINES, Donated, River View Apts.	2008	77,333	18,044	59,289	60	121,026	0.0%	0
SEWER LINES, Donated, Sun-Up Ext	2008	13,758	3,210	10,548	60	21,531	0.0%	0
MISC SEWER REPLACEMENTS	2008	92,619	21,611	71,008	60	144,948	100.0%	144,948
SEWER LINE REPLACEMENT	2008	222,277	51,865	170,412	60	347,861	100.0%	347,861
CIPP Rehabilitation	2008	287,240	67,023	220,217	60	449,528	100.0%	449,528
SEWER LINE REPLACEMENTS	2008	515,074	111,599	403,474	60	806,087	100.0%	806,087
MANHOLE REPLACEMENT	2008	25,928	5,618	20,310	60	40,578	100.0%	40,578
MANHOLE REPLACEMENT	2008	3,798	823	2,975	60	5,944	100.0%	5,944
SEWER - Neider Ave. Extension	2008	68,429	14,826	53,603	60	107,091	100.0%	107,091
HUETTER INERCEPTOR - 2009	2008	114,050	24,711	89,339	60	178,487	100.0%	178,487
SEWERLINE REPLACEMENT	2008	3,644	790	2,855	60	5,703	100.0%	5,703
DONATED LINES 2009 - FERNAN HILL	2009	13,800	2,760	11,040	60	20,933	0.0%	0
DONATED LINES 2009- HAWKS NEST	2009	115,046	23,009	92,037	60	174,509	0.0%	0
DONATED LINES 2009 - LANDINGS 5TH ADDITIONS	2009	265,585	53,117	212,468	60	402,856	0.0%	0
DONATED LINES 2009 - LANDINGS 5TH ADDITION	2009	5,301	1,060	4,241	60	8,041	0.0%	0
DONATED LINES 2009 - NEIDER EXTENSION "A" PHASE	2009	29,447	5,889	23,558	60	44,667	0.0%	0
DONATED LINES 2009 - PRINCETOWN AT WATERFORD	2009	145,790	29,158	116,632	60	221,143	0.0%	0
DONATED LINES 2010 - CDA PLACE CORCELLES	2009	41,203	8,241	32,962	60	62,499	0.0%	0
DONATED LINES 2010 - HABITAT	2009	26,823	5,365	21,458	60	40,687	0.0%	0
DONATED LINES 2010 - HAWKS NEST	2009	123,540	24,708	98,832	60	187,393	0.0%	0
DONATED LINES 2010 - HONI ADDITIONA	2009	20,353	4,071	16,282	60	30,873	0.0%	0
DONATED LINES 2010 - HOARD EXTENSION (NEIDER PHASE	2009	66,453	13,291	53,162	60	100,800	0.0%	0
DONATED LINES 2010 - ZANETTI SUBDIVISION	2009	42,414	8,483	33,931	60	64,336	0.0%	0
SEWER LINE REPLACEMENT	2009	592,092	118,418	473,673	60	898,121	100.0%	898,121
HOWARD STREET NORTH PROJECT	2009	22,975	6,893	16,082	40	34,850	100.0%	34,850
HUETTER INTERCEPTOR	2010	84,400	16,880	67,520	60	124,713	100.0%	124,713
Sewer Replacement/Collection	2010	8,357	1,671	6,686	60	12,349	100.0%	12,349
SEWER LINES - donated John Loop	2010	50,572	9,271	41,300	60	74,727	0.0%	0
SEWER LINES - donated Walker's Glen	2010	8,738	1,602	7,136	60	12,912	0.0%	0
SEWER LINES - donated Meadow Ranch	2010	34,416	6,310	28,107	60	50,855	0.0%	0
SEWER LINES - donated Landings 7th Addition	2010	39,126	7,173	31,953	60	57,815	0.0%	0
SEWER LINES - donated Seltice Seniors	2010	24,920	4,569	20,352	60	36,824	0.0%	0
2011 SEWER REPLACEMENT 2	2010	16,057	2,944	13,113	60	23,727	100.0%	23,727
HUETTER INTERCEPTOR	2011	33,000	6,050	26,950	60	47,302	100.0%	47,302

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2011SEWER REPLACEMENT	2011	526,978	96,613	430,365	60	755,373	100.0%	755,373
Sewer Lines - donated Educational Corridor - LCDC	2011	141,368	23,561	117,807	60	202,638	0.0%	0
Sewer Lines - donated CdA Place 18th Addition	2011	13,900	2,317	11,583	60	19,924	0.0%	0
Sewer Lines - donated Rudeen interior	2011	33,200	5,533	27,667	60	47,589	0.0%	0
Sewer Lines - donated Dave Smith Extension	2011	9,560	1,593	7,967	60	13,703	0.0%	0
Sewer Replacement/collection	2012	487,761	81,294	406,468	60	681,579	100.0%	681,579
Sewer Replacement/collection	2012	6,487	1,081	5,406	60	9,065	100.0%	9,065
Sewer Lines-Gov't Wy-Dalton	2012	169,955	28,326	141,629	60	237,489	100.0%	237,489
Huetter Interceptor	2012	12,100	2,017	10,083	60	16,908	100.0%	16,908
2013 open trench sewer replacements	2013	108,360	16,254	92,106	60	147,635	100.0%	147,635
2013 open trench sewer replacement	2013	357,626	53,644	303,982	60	487,250	100.0%	487,250
Sewer lines - donated Landings 10th Addn	2013	51,715	7,757	43,958	60	70,459	0.0%	0
Sewer lines - donated Maverick Station	2013	40,944	6,142	34,802	60	55,784	0.0%	0
Sewer lines - donated Mill River	2013	13,804	2,071	11,733	60	18,807	0.0%	0
Sewer lines - donated Pereira 3rd Addn	2013	11,297	1,695	9,602	60	15,391	0.0%	0
Sewer lines - donated Specialty Retailers	2013	12,873	1,931	10,942	60	17,538	0.0%	0
Sewer lines - donated CdA Place 19th Addn	2013	43,577	6,537	37,040	60	59,372	0.0%	0
Sewer lines - donated CdA Place 20th Addn	2013	135,543	20,331	115,211	60	184,671	0.0%	0
Sewer lines - donated CdA Place 21st Addn	2013	37,680	5,652	32,028	60	51,337	0.0%	0
Sewerline Replacement	2014	658,364	87,782	570,582	60	873,216	100.0%	873,216
Sewer lines - donated Landings 11th	2014	108,165	14,422	93,743	60	143,464	0.0%	0
Sewer lines - donated Landings 12th	2014	153,282	20,438	132,844	60	203,304	0.0%	0
Sewer lines - donated Seltice Westbound Extension	2014	125,993	16,799	109,194	60	167,110	0.0%	0
Sewer lines - donated CdA Place 22nd	2014	59,349	7,913	51,436	60	78,717	0.0%	0
Sewer lines - donated Lake Forest	2014	182,868	24,382	158,486	60	242,546	0.0%	0
Sewer lines - donated Curcuit at Seltice	2014	44,005	5,867	38,138	60	58,366	0.0%	0
Sewer lines - donated Riverwalk	2014	30,824	4,110	26,714	60	40,883	0.0%	0
Sewer lines - donated CdA Place 23rd	2014	49,720	6,629	43,091	60	65,946	0.0%	0
Reroute Glass Lined Pipe - DCB Project	2014	8,278	1,104	7,174	60	10,980	100.0%	10,980
Sewer Replacement/Collection	2015	693,915	80,957	612,958	60	899,381	100.0%	899,381
Sewer lines - Donated Metro Car Wash	2015	12,019	1,402	10,617	60	15,578	0.0%	0
Sewer lines - donated CdA 24th Addn	2015	64,090	7,477	56,613	60	83,067	0.0%	0
Sewer lines - donated Lake Forest West	2015	49,462	5,771	43,691	60	64,107	0.0%	0
Sewer Lines - Donated CdA Place 25th Addn	2015	28,110	3,280	24,831	60	36,433	0.0%	0
Sewer Lines - Donated 2nd St Extension	2016	6,705	671	6,035	60	8,436	0.0%	0
Sewer Lines - Donated CdA 26th Addn	2016	42,438	4,244	38,194	60	53,390	0.0%	0
Sewer Lines - Donated CdA Place 27th Addn	2016	101,604	10,160	91,443	60	127,824	0.0%	0
Sewer Lines - Donated Fire Station #4	2016	18,528	1,853	16,675	60	23,309	0.0%	0
Sewer Lines - Donated Lake Forest	2016	52,092	5,209	46,883	60	65,535	0.0%	0
Sewer Lines - Donated Rivers Edge	2016	29,038	2,904	26,134	60	36,532	0.0%	0
Sewer Lines - Donated Riverstone Silver	2016	4,777	478	4,299	60	6,010	0.0%	0
Sewer Lines - Donated Solomon / Ammon	2016	15,888	1,589	14,299	60	19,988	0.0%	0
Sewer Lines - The Trails	2016	225,069	22,507	202,562	60	283,151	100.0%	283,151
RR.1 Realignment B-Interceptor Project	2016	756,870	75,687	681,183	60	952,190	100.0%	952,190
CIPP / Pipe Rehabilitation	2016	682,157	68,216	613,941	60	858,197	100.0%	858,197
Sewer Lines -Donated 9th St Extension	2017	7,715	643	7,072	60	9,346	0.0%	0
Sewer Lines - Donated Alpine Point	2017	52,232	4,350	47,882	60	63,277	0.0%	0
Sewer Lines - Donated Bolivar 3rd Add	2017	49,630	4,134	45,496	60	60,124	0.0%	0
Sewer Lines - Donated Cda Builders Extension	2017	7,955	663	7,292	60	9,637	0.0%	0
Sewer Lines - Donated CDA Place 28th Add	2017	63,532	5,292	58,240	60	76,966	0.0%	0
Sewer Lines - Donated Garden Grove	2017	111,396	9,278	102,118	60	134,951	0.0%	0
Sewer Lines - Donated Lake Forest West 3rd Addn	2017	93,842	7,816	86,026	60	113,685	0.0%	0
Sewer Lines - Donated Prairie Trails	2017	51,209	4,265	46,944	60	62,037	0.0%	0
Sewer Lines - Donated Riveria Court	2017	10,229	852	9,377	60	12,392	0.0%	0
Sewer Lines - Donated Riviera	2017	22,440	1,869	20,571	60	27,185	0.0%	0
CIPP / Open Trench Pipe Rehabilitation	2017	671,767	55,953	615,815	60	813,813	100.0%	813,813

City of Coeur D'Alene
Rate and Capitalization Fee Study
Capitalization Fee
Exhibit 27 - Collection Main Calculation

Description	Year	Original Cost	Accumulated Depreciation	Net Book Value	Useful Life	2022	Percent CF Eligible	CF Eligible
Sewer Lines - Donated by CDA Place 30th add	2018	37,705	2,514	35,191	60	44,334	0.0%	0
Sewer Lines - Donated by Tilford (Riverstone)	2018	12,662	844	11,818	60	14,888	0.0%	0
Sewer Lines - Donated Trails 2nd Add	2018	137,363	9,158	128,205	60	161,514	0.0%	0
Sewer Lines - Donated Gov. Way	2019	329,974	16,499	313,475	60	380,444	0.0%	0
Sewer Lines - Donated Bluegrass Lodge	2019	2,664	133	2,531	60	3,071	0.0%	0
Sewer Lines - Donated Emery Estates	2019	6,927	346	6,581	60	7,987	0.0%	0
Sewer Lines - Donated 15th & Gilbert	2019	2,532	127	2,405	60	2,919	0.0%	0
Sewer Lines - Donated Vista Meadows	2019	51,102	2,555	48,547	60	58,918	0.0%	0
Sewer Lines - Donated 615 W Lakeshore	2019	2,532	127	2,405	60	2,919	0.0%	0
Sewer Lines - Donated CDA 31st Add	2019	162,411	8,121	154,290	60	187,252	0.0%	0
Sewer Lines - Donated 7th & Locust MH	2019	2,664	133	2,531	60	3,071	0.0%	0
Sewer Lines - Donated 9th S of Elm	2019	2,532	127	2,405	60	2,919	0.0%	0
Sewer Lines - Donated FS Doghouse MH	2019	2,796	140	2,656	60	3,224	0.0%	0
Sewer Lines - Donated Bolivar 4th Add	2019	20,556	1,028	19,528	60	23,700	0.0%	0
Sewer Lines - Donated Metro Car Wash	2019	4,920	246	4,674	60	5,673	0.0%	0
Sewer Lines - Donated Spokane St. MH	2019	2,532	127	2,405	60	2,919	0.0%	0
Sewer Lines - Donated 9th S of Hastings	2019	2,532	127	2,405	60	2,919	0.0%	0
Open Trench Pipe Rehabilitation	2019	1,089,845	54,492	1,035,353	60	1,256,540	100.0%	1,256,540
CIPP Open Trench Pipe Rehabilitation	2020	1,176,668	39,222	1,137,446	60	1,334,835	100.0%	1,334,835
Sewer Lines - Donated Lilac Glen	2020	51,505	1,717	49,788	60	58,428	0.0%	0
Sewer Lines - Donated Trails 4th Addn	2020	197,108	6,570	190,538	60	223,603	0.0%	0
Sewer Lines - Donated The District	2020	19,044	635	18,409	60	21,604	0.0%	0
Sewer Lines - Donated Bluegrass Lodge	2020	13,084	436	12,648	60	14,843	0.0%	0
Sewer Lines - Donated Atlas Waterfront Project 1	2020	105,215	3,507	101,708	60	119,358	0.0%	0
Sewer Lines - Donated The Union	2020	48,846	1,628	47,218	60	55,412	0.0%	0
Sewer Lines - Donated CDA Place 32nd Addn	2020	248,554	8,285	240,269	60	281,964	0.0%	0
Sewer Lines - Donated Glacier/Riverstone Apts	2020	7,040	235	6,805	60	7,986	0.0%	0
CIPP Open Trench Pipe Rehabilitation	2021	556,877	9,281	547,596	60	596,968	100.0%	596,968
Sewer Lines - Donated CdA Place 33rd Addn	2021	100,815	1,680	99,135	60	108,073	0.0%	0
Sewer Lines - Donated Delcardo Village	2021	69,701	1,162	68,539	60	74,719	0.0%	0
Sewer Lines - Donated Enclave	2021	236,080	3,935	232,145	60	253,076	0.0%	0
Sewer Lines - Donated Rivers Edge	2021	132,828	2,214	130,614	60	142,391	0.0%	0
Sewer Lines - Donated Meeson	2021	7,020	117	6,903	60	7,525	0.0%	0
Sewer Lines - Donated LaVista	2021	13,980	233	13,747	60	14,986	0.0%	0
LaCrosse Project WW Share	2021	30,219	504	29,715	60	32,395	100.0%	32,395
Total Existing Collection Mains		$49,022,018	$15,008,531	$34,013,487		$109,652,979		$58,806,319

City of Coeur D'Alene
Rate and Capitalization Fee Study
Capitalization Fee
Exhibit 28 - Lift Station Calculation

Description	Year	Original Cost	Accumulated Depreciation	Net Book Value	Useful Life	2022	Percent CF Eligible	CF Eligible
Existing Lift Stations								
LIFT STATION FERNAN AT FERNAN LAKE DR. & FERNAN CT	1960	$65,000	$65,000	$0	50	1,026,025	100.0%	$1,026,025
LIFT STATION MILL RIVER ON GRAND MILL DRIVE	1989	133,500	133,500	0	20	376,254	100.0%	376,254
PUMPS, CONTROLS, PIPING AND BACKUP SEWER LIFT	1990	85,856	85,856	0	15	235,993	100.0%	235,993
PUMPS, CONTROLS, PIPING AND BACKUP SEWER LIFT	1990	31,240	31,240	0	15	85,871	100.0%	85,871
PUMPS, CONTROLS, PIPING AND BACKUP SEWER LIFT	1990	39,564	39,564	0	15	108,750	100.0%	108,750
PUMPS, CONTROLS, PIPING AND BACKUP SEWER LIFT	1990	32,592	32,592	0	15	89,586	100.0%	89,586
LIFT STATION #4 - FERNAN - BUILDING	1992	728,208	546,156	182,052	40	1,900,038	100.0%	1,900,038
LIFT STATION #6 - FOOTHILLS - BUILDING	1995	56,700	38,273	18,428	40	134,799	100.0%	134,799
LIFT STATION RIVERSIDE AT BELLERIVE & BEEBE	1997	106,800	53,400	53,400	50	238,436	100.0%	238,436
LIFT STATION #2 - ASH STREET - BUILDING	1998	147,458	88,475	58,983	40	323,980	100.0%	323,980
WW TELEMETRY SYSTEM	2000	8,644	8,644	0	20	18,073	100.0%	18,073
LIFT STATION INDIAN MEADOWS AT END OF BUCKSKIN	2001	63,300	26,586	36,714	50	129,986	100.0%	129,986
CUMBERLAND MEADOWS LIFT STATION	2001	34,048	17,875	16,173	40	69,917	100.0%	69,917
LIFT STATION WOODSIDE MEADOWS and PINES	2002	72,700	29,080	43,620	50	144,631	100.0%	144,631
LIFT STATION FOOTHILLS ON THOMPSON HILLS	2004	69,600	69,600	0	5	127,235	100.0%	127,235
LIFT STATION 15TH & ASH	2005	76,200	25,908	50,292	50	133,108	100.0%	133,108
LIFT STATION CUMBERLAND MEADOWS ON MARTHA	2006	82,700	82,700	0	5	138,774	100.0%	138,774
LIFT STATION CANFIELD AT SHADDUCK	2007	78,300	23,490	54,810	50	127,828	100.0%	127,828
Duplex Pump Panel for Canfield Lift Station	2012	14,937	14,937	0	8	20,872	100.0%	20,872
Duplex Pump Panel for Woodside Lift Station	2012	12,695	12,695	0	8	17,740	100.0%	17,740
Canfield & Woodside LS control panels	2014	15,741	15,741	0	8	20,878	100.0%	20,878
Hydromatic pump for Mill River	2018	18,235	9,118	9,118	8	21,441	100.0%	21,441
Duplex Lift Station Panel	2018	17,090	8,545	8,545	8	20,095	100.0%	20,095
Duplex Lift Station	2018	16,340	8,170	8,170	8	19,213	100.0%	19,213
15th & Ash Lift Station pump	2019	7,785	1,946	5,838	8	8,975	100.0%	8,975
Mill River Lift Station Pump	2019	18,432	4,608	13,824	8	21,251	100.0%	21,251
Foothills Lift Station pump replacment	2020	11,996	2,999	8,997	8	13,608	100.0%	13,608
Riverside Lift Station Pump replacement	2020	16,202	810	15,392	40	18,380	100.0%	18,380
Total Existing Lift Stations		$2,061,863	$1,477,508	$584,355		$5,591,739		$5,591,739

City of Coeur D'Alene
Rate and Capitalization Fee Study
Capitalization Fee
Exhibit 29 - Compost Calculation

Description	Year	Original Cost	Accumulated Depreciation	Net Book Value	Useful Life	2022	Percent CF Eligible	CF Eligible
Existing Compost								
WASTEWATER COMPOST ARCH FORM BUILDING	1960	$5,902	$5,902	$0	20	93,163	100.0%	$93,163
PAVING ASPHALT	1982	111,000	88,800	22,200	50	377,453	100.0%	377,453
COMPOST CHIP STORAGE BUILDING	1986	66,909	60,218	6,691	40	202,625	100.0%	202,625
WASTEWATER COMPOST BUILDING	1989	1,358,600	1,120,845	237,755	40	3,829,057	100.0%	3,829,057
COMPOST MATERIAL STORAGE 3500 JULIA	1990	14,862	9,512	5,350	50	40,852	100.0%	40,852
FRONT END LOADER, ARTICULATING, 1994	1994	90,522	90,522	0	15	217,716	100.0%	217,716
CHIP BIN, W/DBL AUGER, BELT DELIVERY	1994	25,000	25,000	0	5	60,128	100.0%	60,128
BATCH MIX TRAILER, 30 YARD, W/JD DIESEL ENG	1994	60,000	60,000	0	15	144,307	100.0%	144,307
TROMMEL SCREEN, COMPOST, W/BIN HOP SCRN, 5 CNVYR BELT	1994	100,000	100,000	0	15	240,511	100.0%	240,511
FENCE CHAIN LINK 8'	1994	31,900	31,900	0	20	76,723	100.0%	76,723
BIOSOLID BIN, W/DELIVERY BELT, 10 YARD	1994	25,000	25,000	0	5	60,128	100.0%	60,128
COMPOST CONVEYOR BELTS	2002	11,747	11,747	0	15	23,371	100.0%	23,371
STORAGE EQUIPMENT SHED	2002	14,862	14,862	0	20	29,568	100.0%	29,568
COMPOST TOOL SHED-3500 JULIA	2007	5,902	1,476	4,426	60	9,635	100.0%	9,635
COMPOST BLOWER	2009	1,158	1,158	0	5	1,756	100.0%	1,756
Biosolid Sitorage Bin	2009	29,700	29,700	0	8	45,051	100.0%	45,051
COMPOST BIO SOLID BIN	2010	25,909	25,909	0	5	38,285	100.0%	38,285
Conduit Compost Facility	2010	8,700	8,700	0	8	12,856	100.0%	12,856
New Augers and installation for Compost Facility	2012	16,416	16,416	0	8	22,939	100.0%	22,939
Compost Gate	2018	15,138	1,514	13,624	30	17,800	100.0%	17,800
Bark for biofilter beds odor control	2020	32,970	6,594	26,376	5	37,402	100.0%	37,402
New building at Compost Facility	2020	898,196	59,880	838,316	30	1,018,930	100.0%	1,018,930
CIP Compost biosolids hopper	2020	12,983	0	12,983	15	14,729	100.0%	14,729
Compost Blowers	2020	67,809	16,952	50,856	8	76,923	100.0%	76,923
Compost Lighting Project	2021	9,520	635	8,885	15	10,205	100.0%	10,205
CIP - Compost Biosolids Hopper	2021	245,869	0	245,869	15	263,570	100.0%	263,570
Total Existing Compost		$3,286,575	$1,813,242	$1,473,333		$6,965,682		$6,965,682

City of Coeur D'Alene
Rate and Capitalization Fee Study
Capitalization Fee
Exhibit 30 - General Plant Calculation

Description	Year	Original Cost	Accumulated Depreciation	Net Book Value	Useful Life	2022	Percent CF Eligible	CF Eligible
Existing General Plant								
POLE FRAME STORAGE BUILDING	1972	$86,091	$86,091	$0	40	638,775	100.0%	$638,775
TIP UP BUILDING	1984	13,977	13,278	699	40	43,849	100.0%	43,849
PHOTOCOPIER	1987	6,165	4,316	1,850	50	18,200	0.0%	0
HARBOR CENTER BUILDING WASTEWATER 75%	1990	1,558,037	1,246,430	311,607	40	4,282,575	100.0%	4,282,575
GENERATOR, 2 HOURS, 1992	1990	41,160	41,160	0	5	113,136	100.0%	113,136
CLOSED CIRCUIT CAMERA SYSTEM, COLOR, W/1000' CABLE	1990	54,600	54,600	0	20	150,079	100.0%	150,079
STANDBY GENERATOR #1	1990	187,600	120,064	67,536	50	515,656	100.0%	515,656
GENERATOR, 35 KW, W/DUAL AXLE TRAILER	1990	31,920	31,920	0	15	87,738	100.0%	87,738
CONCRETE TIP-UP STORAGE	1992	64,568	38,741	25,827	50	168,471	100.0%	168,471
SPARE PARTS BUILDING	1995	38,604	20,846	17,758	50	91,778	100.0%	91,778
SHOP & GARAGE	1995	132,750	71,685	61,065	50	315,602	100.0%	315,602
LAWN TRACTOR, DIESEL, 54" DECK, HYDRAULICS	1998	11,073	11,073	0	15	24,329	100.0%	24,329
RESURFACE PAVEMENT AT HARBOR CENTER	2000	35,321	35,321	0	20	73,849	100.0%	73,849
OUTDOOR LIGHTS AT HARBOR CENTER	2000	35,092	35,092	0	10	73,370	100.0%	73,370
RI/FS COMMUNITY REVIEW	2000	24,697	13,584	11,114	40	51,637	0.0%	0
COLLECTION SYSTEM MASTER PLAN	2000	52,123	28,668	23,455	40	108,979	0.0%	0
FACILITY PLANNING UPDATE	2000	133,755	73,565	60,190	40	279,655	0.0%	0
HARBOR CENTER RESTROOM REMODEL	2001	17,295	12,107	5,189	30	35,516	100.0%	35,516
FUME HOOD W/2 SERV. FIX 4' PROT	2001	6,114	6,114	0	20	12,554	100.0%	12,554
SULLAIR 185CFM COMPRESSOR	2001	11,384	11,384	0	15	23,376	100.0%	23,376
JOHN DEERE 6" TRASH PUMP	2001	12,178	12,178	0	15	25,007	100.0%	25,007
FACILITY PLANNING UPDATE	2001	31,000	16,275	14,725	40	63,658	0.0%	0
RI/FS COMMUNITY REVIEW	2001	29,003	15,227	13,776	40	59,558	0.0%	0
COLLECTION SYSTEM MASTER PLAN	2001	7,222	3,791	3,430	40	14,829	0.0%	0
RATE STUDY	2001	78,794	41,367	37,427	40	161,804	0.0%	0
WATER QUALITY PLANNING GRANT	2001	18,596	9,298	9,298	40	38,187	0.0%	0
STORAGE SHED	2001	5,723	4,006	1,717	30	11,751	49.0%	5,758
LABORATORY ANNEX	2001	120,000	50,400	69,600	50	246,420	100.0%	246,420
ANALYZER, MOIST, HALOGEN W/PRINTER	2002	5,026	5,026	0	10	9,998	100.0%	9,998
AUTOCLAVE	2002	5,986	5,986	0	20	11,909	100.0%	11,909
RI/FS COMMUNITY REVIEW	2002	15,114	7,557	7,557	40	30,069	0.0%	0
COLLECTION SYSTEM MASTER PLAN	2002	35,562	14,225	21,337	40	70,747	0.0%	0
WASTEWATER RATE REVIEW STUDY	2002	20,729	6,910	13,819	60	41,239	0.0%	0
SEPTIC PUMPING SYSTEM	2002	63,052	63,052	0	4	125,437	100.0%	125,437
PONTIAC BONNEVILLE - 1G2HX54K724101592	2002	16,577	16,577	0	5	32,979	0.0%	0
COLLECTION SYSTEM MASTER PLAN	2003	159,436	60,586	98,850	40	309,793	0.0%	0
WW- RATE REVIEW STUDY	2003	9,723	3,079	6,644	60	18,893	0.0%	0
SPRINGBROOK SOFTWARE	2003	64,810	64,810	0	10	125,930	100.0%	125,930
MONITOR SYSTEM	2003	8,534	8,107	427	20	16,582	100.0%	16,582
Caterpillar Telehandler (forklift)	2004	48,735	48,735	0	10	89,092	100.0%	89,092
WWTP Storage shed	2004	39,842	17,929	21,913	40	72,835	100.0%	72,835
2004 Ford F150 1/2 ton pickup	2004	22,019	22,019	0	5	40,252	0.0%	0
938G II Cat Wheel Loader	2005	116,439	116,439	0	10	203,399	100.0%	203,399
PRINTER PRINT PLAN	2006	5,100	1,632	3,468	50	8,558	0.0%	0
Motorola 150 non integrated radio & installation	2006	17,118	17,118	0	8	28,725	100.0%	28,725
GENERATOR Replacement -WWTP	2006	65,543	24,579	40,964	40	109,984	100.0%	109,984
GENERATOR Replacement -WWTP	2006	21,848	8,193	13,655	40	36,661	100.0%	36,661
OPEN FRONT STORAGE BUILDING	2006	43,728	43,728	0	15	73,377	100.0%	73,377
UNDERGOUND UTILITY CORRIDOR	2006	1,181,852	378,193	803,659	50	1,983,198	100.0%	1,983,198
VOIP TELEPHONES	2007	15,900	15,900	0	8	25,957	100.0%	25,957
GENERATOR	2007	5,300	1,325	3,975	60	8,652	100.0%	8,652
AUTOMOBILE HYBRID FORD ESCAPE	2007	26,250	26,250	0	8	42,854	0.0%	0
DUAL FEED ELECTRICAL ENTRANCE SWITCH	2007	318,920	79,730	239,190	60	520,649	100.0%	520,649
ROOF- ADMIN BUILDING	2008	11,730	4,106	7,625	40	18,357	100.0%	18,357
AGITATER	2008	6,130	1,992	4,138	40	9,593	100.0%	9,593

Description	Year	Original Cost	Accumulated Depreciation	Net Book Value	Useful Life	2022	Percent CF Eligible	CF Eligible
CAUSTIC PUMP - FOR CHEM SYSTEM	2008	8,617	4,826	3,792	25	13,486	100.0%	13,486
ANALYZER - RA-503	2008	6,171	3,456	2,715	25	9,657	100.0%	9,657
COPIER-AFICIO - RICOH-Admin	2008	5,550	5,550	0	8	8,686	0.0%	0
LAB TRANSPORTER	2008	10,955	10,955	0	5	17,145	100.0%	17,145
Flaskscrubber	2008	7,755	7,755	0	8	12,137	100.0%	12,137
ROOT CUTTER	2008	2,608	2,608	0	8	4,082	100.0%	4,082
FACILITY - PLANNING	2008	133,258	74,625	58,634	25	208,548	0.0%	0
SEWER GIS - PLANNING	2008	506,128	283,432	222,696	25	792,087	0.0%	0
SEWER - 2009 Planning Contract	2008	58,960	12,775	46,185	60	92,272	0.0%	0
TRICKLE FILTER PUMP	2008	12,000	6,720	5,280	25	18,780	100.0%	18,780
ELECTRIC PANEL REPLACEMENT	2008	8,621	2,802	5,819	40	13,491	100.0%	13,491
ELECTRIC PANEL REPLACEMENT	2008	22,678	7,370	15,308	40	35,491	100.0%	35,491
BIOFILTER MEDIA REPLACEMENT	2009	27,901	27,901	0	8	42,322	100.0%	42,322
Pretreatment Computer Equip	2009	9,990	9,990	0	5	15,153	100.0%	15,153
CONTROL PANEL - FOOTHILLS	2009	21,422	21,422	0	8	32,494	100.0%	32,494
Ford F350 1 Ton Flatbed #441	2009	31,882	31,882	0	5	48,360	0.0%	0
SLUDGE 2010 DUMP TRUCK	2009	111,820	111,820	0	5	169,615	100.0%	169,615
CCTV Van\Inspection Equip	2009	154,197	154,197	0	5	233,895	100.0%	233,895
LIGHTING ADMIN BUILDING	2010	7,603	0	7,603	30	11,234	100.0%	11,234
REFURBISH DIGESTER/CLARIFIERS	2010	650,143	195,043	455,100	40	960,683	100.0%	960,683
UTILITY TRACTOR SNOW THROWER	2010	39,338	39,338	0	5	58,128	100.0%	58,128
GIS\SEWER PLANNING	2010	17,540	5,262	12,278	40	25,919	0.0%	0
FORD F250 4WD 2011 - WHITE	2010	21,842	21,842	0	5	32,275	100.0%	32,275
WWTP - PHASE 5B - CABINETS	2010	554,931	152,606	402,325	40	819,993	100.0%	819,993
INDUSTRIAL WORKBENCH & TOOL BOX	2011	2,480	2,480	0	8	3,555	100.0%	3,555
Ricoh copier	2011	8,475	8,475	0	5	12,148	0.0%	0
WW - RATE STUDY 2011	2011	19,148	5,266	13,882	40	27,447	0.0%	0
2011 GIS Planning	2011	22,009	6,053	15,957	40	31,548	0.0%	0
GIS/ Sewer planning	2011	167,027	41,757	125,270	40	239,417	0.0%	0
2011 Dodge Journey	2011	24,138	24,138	0	5	34,600	0.0%	0
2011 Dodge Ram 150	2011	25,137	25,137	0	5	36,032	0.0%	0
FIBER OPTICS - PLANT	2011	42,407	11,662	30,745	40	60,786	100.0%	60,786
Lab Transporter	2012	7,110	7,110	0	5	9,935	100.0%	9,935
Hood & exhaust system WW	2012	10,820	2,705	8,115	40	15,119	100.0%	15,119
Shaft Drive Units	2012	31,495	7,874	23,621	40	44,010	100.0%	44,010
Trakstar Zoom Camera & ProTRAK Crawler	2012	24,950	24,950	0	8	34,864	100.0%	34,864
2012 Pilot Studies	2012	99,929	24,982	74,947	40	139,637	0.0%	0
Jet truck	2012	161,712	161,712	0	5	225,970	100.0%	225,970
Freightliner Dump Truck	2012	126,556	126,556	0	5	176,844	100.0%	176,844
GMC Sierra 3500 Regular Cab LD Single Wheel 4 x 4	2012	22,801	22,801	0	5	31,861	100.0%	31,861
2013 GMC Sierra 1500 Crew Cab WT 4-wheel - White	2012	23,340	23,340	0	5	32,614	0.0%	0
GMC 2500 Stahl Crane 3200 LRX-15-EH	2013	22,976	22,976	0	8	31,304	100.0%	31,304
Titan plow Pro Plus	2013	5,726	5,726	0	8	7,801	100.0%	7,801
2014 John Deere Wausau-Everest Snow Blower	2013	53,900	43,120	10,780	10	73,436	100.0%	73,436
GIS Master Planning 2012-13	2013	132,229	29,752	102,478	40	180,157	0.0%	0
2014 GMC Sierra 150 Pickup	2013	28,431	28,431	0	5	38,736	0.0%	0
copier for the lab	2014	5,468	5,468	0	5	7,252	0.0%	0
2015 Freightliner M2-106 White Tank truck #447	2014	102,050	102,050	0	5	135,353	100.0%	135,353
2015 GMC Terrain Util Vehicle	2014	24,120	24,120	0	5	31,991	0.0%	0
CCTV Camera OmniSTAR Probe Pan and Tilt Camera	2015	21,737	21,737	0	5	28,173	100.0%	28,173
2015 John Deere UTV	2015	13,200	13,200	0	5	17,108	100.0%	17,108
6" Diesel Driven Trash Pump	2016	32,794	32,776	18	5	41,257	100.0%	41,257
2016 Ford F150 4WD SuperCrew XL 5	2016	31,050	31,050	0	5	39,063	100.0%	39,063
2017 Freightliner 114SD	2016	384,820	384,820	0	5	484,128	100.0%	484,128
flackscrubber	2017	9,207	9,202	5	5	11,154	100.0%	11,154
Diesel driven 4" trash pump	2017	26,873	26,859	15	5	32,556	100.0%	32,556

City of Coeur D'Alene
Rate and Capitalization Fee Study
Capitalization Fee
Exhibit 30 - General Plant Calculation

Description	Year	Original Cost	Accumulated Depreciation	Net Book Value	Useful Life	2022	Percent CF Eligible	CF Eligible
Camera System Upgrad	2018	16,144	12,916	3,229	5	18,983	100.0%	18,983
2017 Kioti UTV	2018	15,361	12,289	3,072	5	18,062	100.0%	18,062
2018 Dodge Ram	2018	27,662	22,130	5,532	5	32,526	100.0%	32,526
Caterpillar 950GC - Lease	2019	200,585	60,175	140,409	10	231,265	100.0%	231,265
Caterpillar 938M - Leased	2019	189,765	56,929	132,835	10	218,790	100.0%	218,790
Security System	2019	32,618	19,571	13,047	5	37,607	100.0%	37,607
Washer Compactor	2020	49,142	6,143	42,999	8	55,748	100.0%	55,748
CIP Operations Building	2020	24,360	0	24,360	40	27,634	100.0%	27,634
CIP - Operations Building	2021	144,369	0	144,369	40	154,763	100.0%	154,763
CIP- Collections Building	2021	34,653	0	34,653	40	37,148	100.0%	37,148
Flackscrubber	2021	9,807	2,452	7,355	5	10,513	100.0%	10,513
Transtar Tractor and ACC	2021	41,993	4,199	37,793	10	45,016	100.0%	45,016
Hose Pump for TWSS	2021	27,808	3,476	24,332	8	29,810	100.0%	29,810
2018 forklift - Linde model HT32T	2021	20,900	2,613	18,288	8	22,405	100.0%	22,405
John Deere Lawn Mower	2021	10,851	1,085	9,766	10	11,633	100.0%	11,633
Remote access hardware, programming & setup	2021	13,010	2,602	10,408	5	13,947	100.0%	13,947
Total Existing General Plant		$10,200,897	$5,881,396	$4,319,501		$18,753,694		$15,368,358

City of Coeur D'Alene
Rate and Capitalization Fee Study
Capitalization Fee
Exhibit 32 - Capitalization Fee Summary

Component	2022 Replacement Cost	Unfunded Deprecation	Total CF by Component
Treatment	$3,285	($726)	$2,559
Collection Mains	757	(85)	672
Lift Stations	72	(19)	53
Compost	90	(23)	66
General Plant	0	0	0
Debt Service Credit	(414)	0	(414)
Totals per PE	$3,790	($853)	**$2,936**

*Court mandated calculation used to establish legal Cap Fee per PE.

General Customer Classification	Population Equivalents	Units	2018 Present Fee	Proposed Fee
Capitalization Fee per PE				
Residential				
Single Family Dwelling	2.27		$3,305	$6,665
Multiple Family Dwelling (2 units)	2.27	per unit	3,305	6,665
Auxilary Dwelling Unit	2.20	per unit	3,042	6,460
Commercial-Low				
Bar or tavern	0.20	per seat	$277	$587
Coffee (or other beverage) kiosk	0.77	per Kiosk	n/a	2,261
Factories	0.10	per 100 sq. ft.	138	294
Hospital	2.50	per bed	3,458	7,341
Institution (other than hospital)	1.25	per bed	1,729	3,670
Mobile Home	2.27	per unit	3,305	6,665
Mobile or Temporary Vendors	0.70	per vendor or vendor space	n/a	2,055
Multiple Family Dwelling (>2 units)	2.20	per unit	3,043	6,460
Office Space	0.10	per 100 sq. ft.	138	294
Retail Space	0.05	per 100 sq. ft.	69	147
RV Parks	2.08	per Site with Hookups	n/a	6,107
School (without meal preparation)	0.08	per student/staff	111	235
Warehouse	0.04	per 100 sq. ft.	55	117
Commercial-Medium				
Hotel or motel (without kitchen facilities in room)	1.30	per unit	$1,798	$3,817
Commercial-High*				
Bakeries	0.20	per seat	$351	$814
Bowling Alley	1.00	per lane	1,755	4,070
Funeral homes	0.05	per sq. ft.	88	203
Grocery markets with garbage disposals	0.04	per sq. ft.	70	163
Hotel or motel (with kitchen facilities in room)	1.60	per unit	2,807	6,511
Laundry, commercial	1.90	per washing machine	3,334	7,732
Brewery	2.30	per Barrel [1]	n/a	9,360
Restaurants	0.20	per seat	351	814
School (with meal preparation)	0.13	per student/staff	228	528
Theaters (indoor and outdoor)	0.03	per seat	53	122

* Fees for customers in the Commercial-High classification include an extra-strength surcharge of $1133.35 for higher loadings.
[1] Brewery: Barrel (31 gallons) equals single run production size of the brewery system